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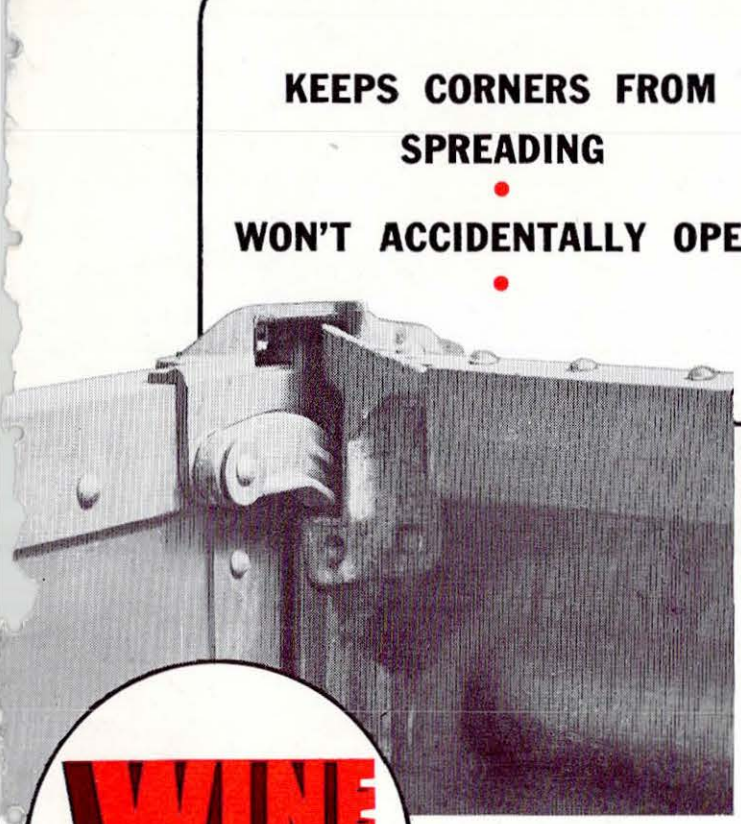

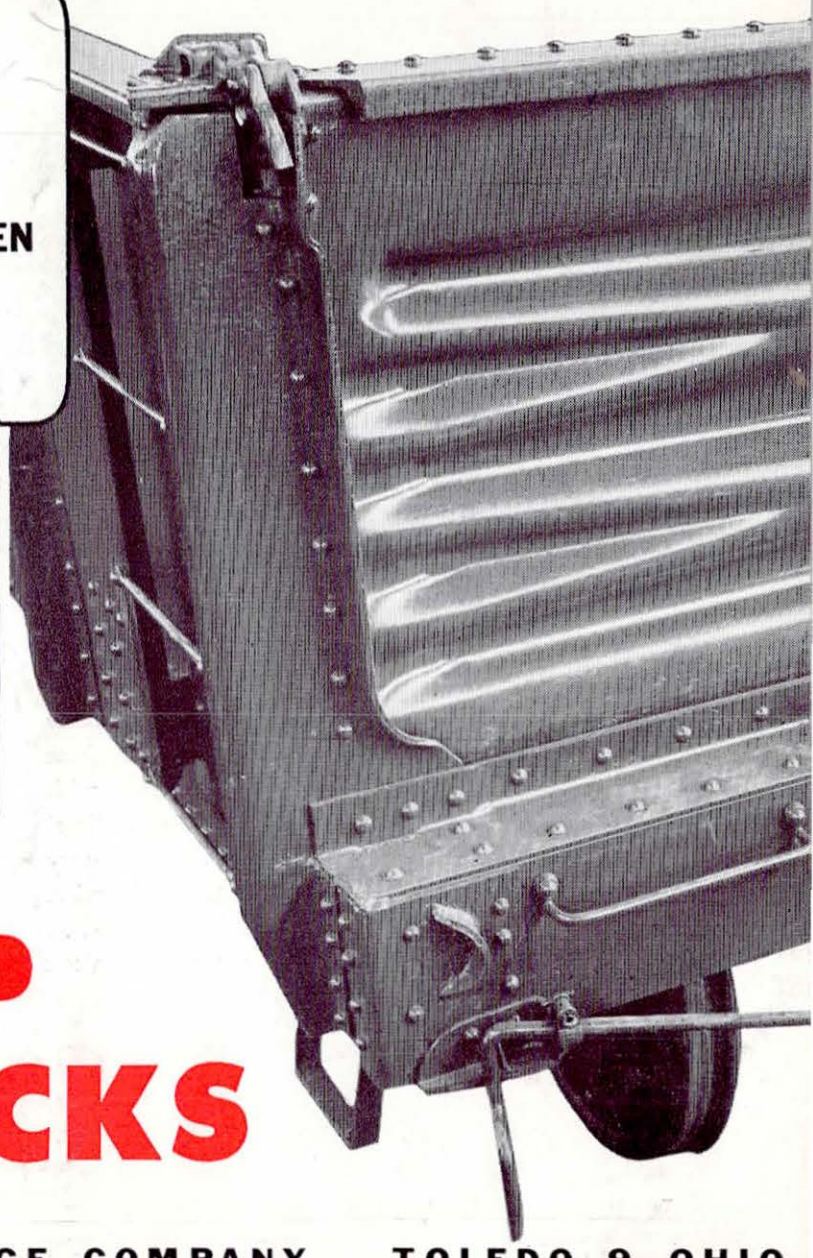

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MORE TROUBLE-FREE PERFORMANCE IS ASSURED . . .

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Published weekly by Simmons-Boardman Publishing Corporation, Orange, Conn. Executive Offices, 30 Church Street, New York 7, N. Y. Entered as second class matter at Orange, Conn., under the act of March 3, 1879. Subscription price $6.00 for one year. U. S. and Canada. Single copies. 50 cents each. Vol. 126, No. 3.

Through Cajon Pass, California, with one of Sante Fe's great streamliners. Power is supplied by a 6000-hp Diesel-electric.

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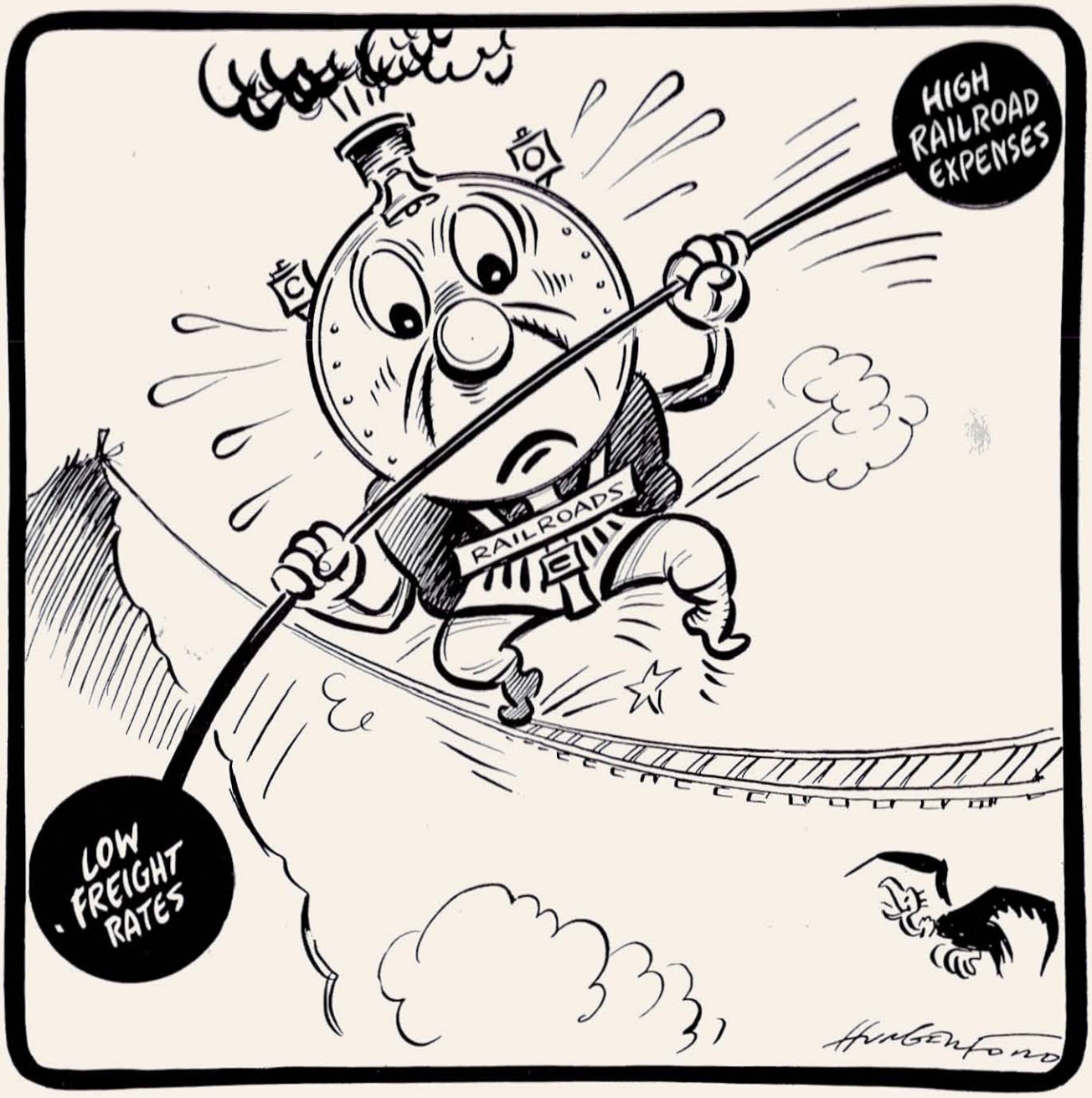
Unsafe Balancing Pole —By Hungerford



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A cut of suitable size may be obtained at cost by anyone wishing to reproduce the above cartoon.

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NAILABLE STEEL FLOORING helps keep gondolas off the Bad Order Report, saves you money in floor repair and replacement costs. Check these points that show *why* NAILABLE STEEL FLOORING cuts floor maintenance costs and keeps cars where they belong—on the line, bringing in revenue.

Greater Strength—Channel design gives NAILABLE STEEL FLOORING higher strength, more resistance to dishing than steel plate floors. After months of grinding impacts from magnets, hot pig iron and the clamshell shown, the NAILABLE STEEL FLOOR in a test car retained its over-all flatness and nailability, its suitability for blocked and skidded loads.

No Nail Damage—Nails can't rip or splinter NAILABLE STEEL FLOORING, can't damage it in *any* way. Held tighter than in wood, the proper size nails (20d or 30d in gondolas) are easily driven into the nailing grooves and can be readily removed.

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Combining nailability and strength, NAILABLE STEEL FLOORING does the job of both wood and conventional steel plate floors—and does each of them better. It saves money in operating as well as maintenance costs. When your next new car or rebuilding program comes up specify NAILABLE STEEL FLOORING.

NO TORN UP PLATES. This photograph shows gondola service at its roughest. Big clamshells like this ten-ton giant often tear rivet heads out of steel plate floors and rip up the cover plates. NAILABLE STEEL FLOORING *cannot* be torn up because it has no projecting rivet heads, no plate edges.

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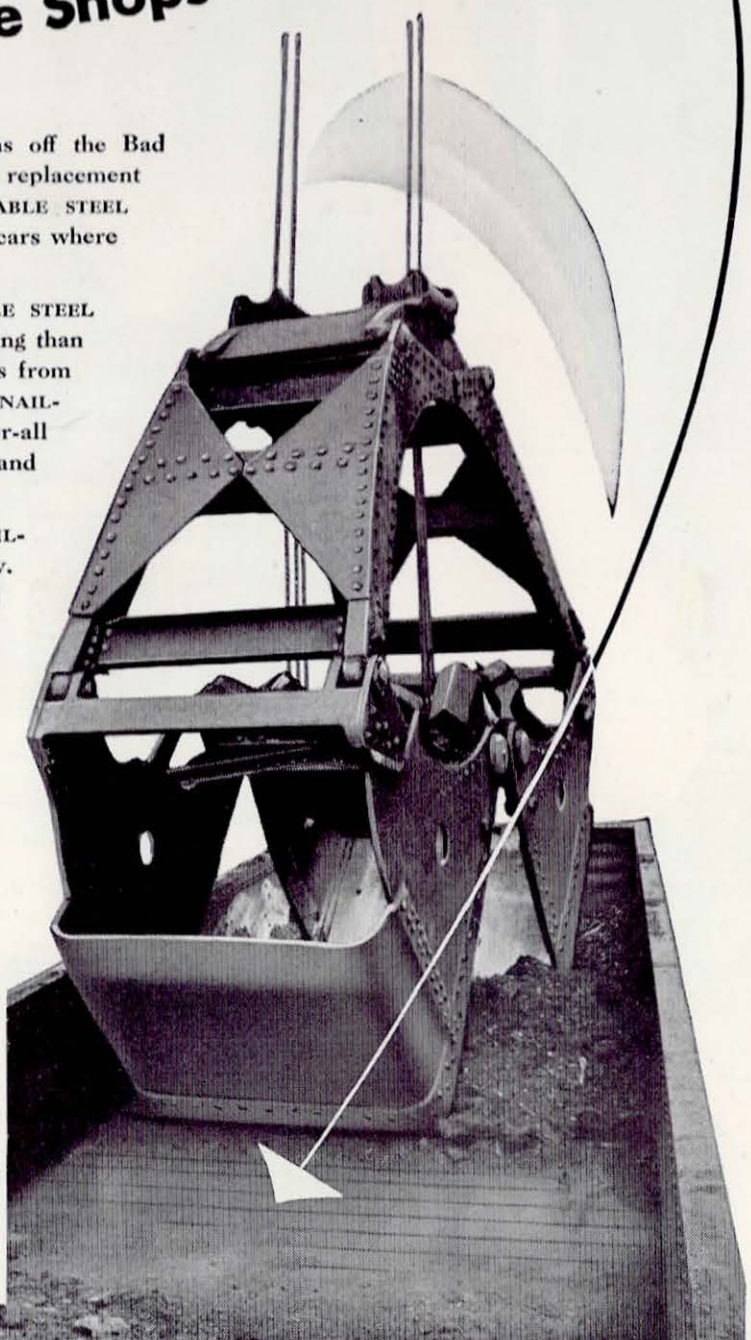

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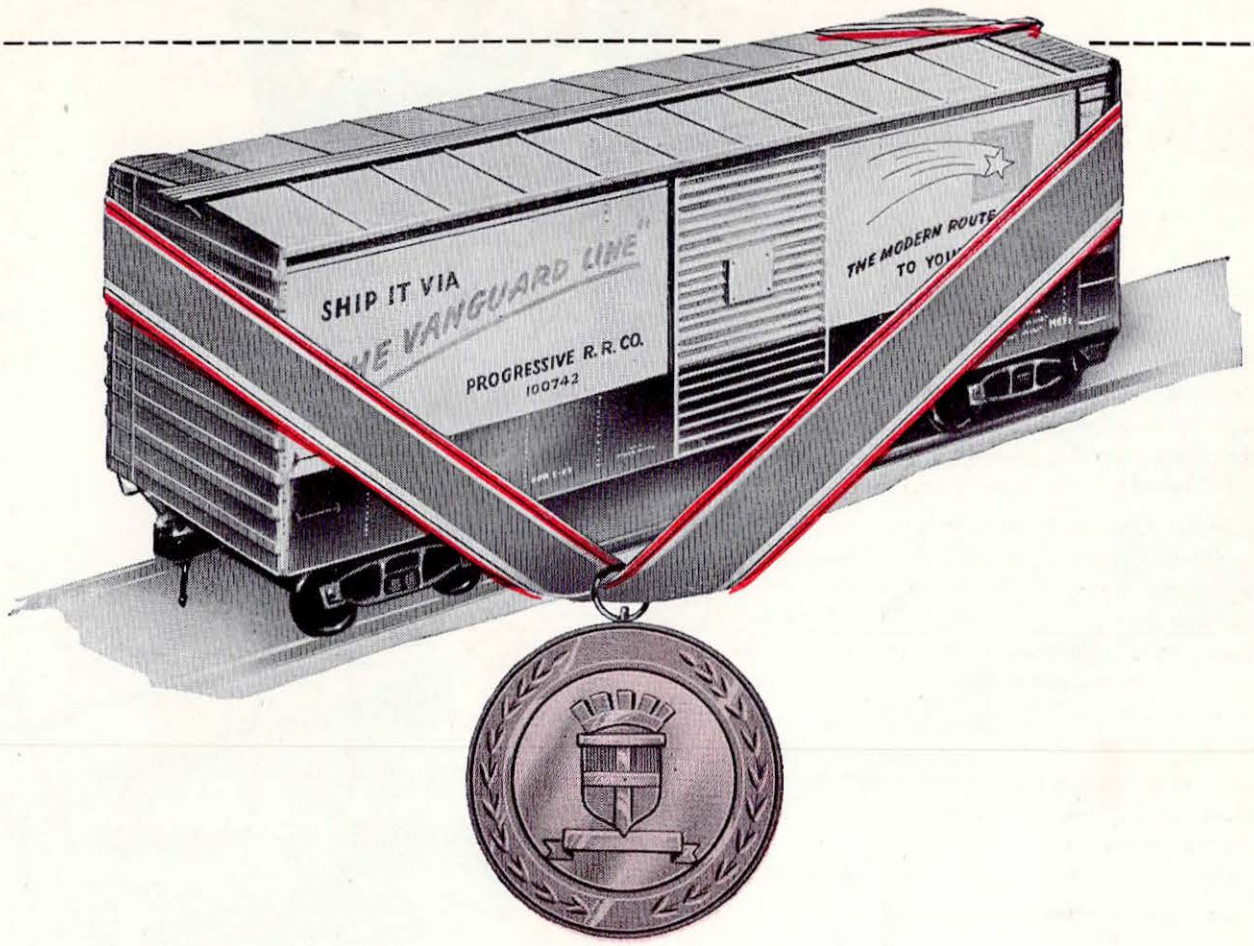

...and a lot more!

There's increased emphasis these days on the *appearance* of freight equipment. Railroad men who understand the value of good public relations also understand that in many parts of the country freight cars are their chief means not only of displaying their company name . . . but of reflecting the sound, progressive management back of it.

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**Includes Class 1 lines operating 100 or more passenger train cars.*

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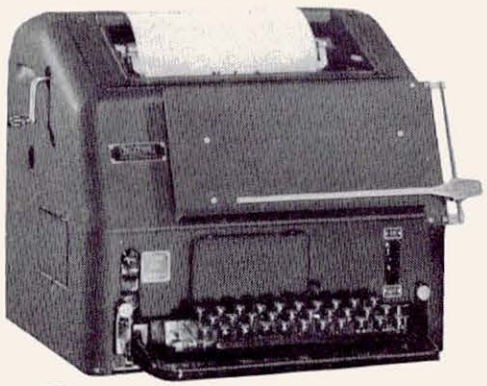
With such a system, you can put your finger on any car, any time, anywhere. That is the type of service which builds good will—adds traffic and revenue. For details on how TELETYPE can do these things for *your* road—as it is now doing for others—write to *Teletype Corporation, 1400 Wrightwood Avenue, Chicago 14, Illinois.*



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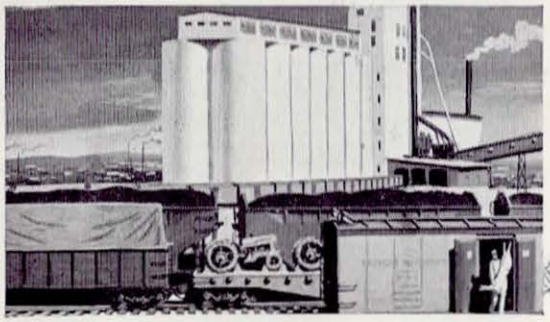
YOU *and* *Your Railroads*

A "Trackside" Report for 1948

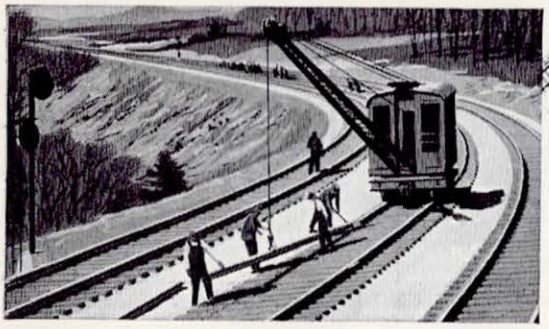
Virtually all the things you eat or wear or use, and the materials of which they are made, move to you — somewhere along the line — *by rail.* So here's a "trackside" report of how your railroads did their job of serving you last year:



1. Delivering the Goods. Every day in 1948 the railroads hauled an average of 12 tons of freight one mile *for every man, woman, and child in the United States!*

2. Carrying People. Nearly two million people rode the railroads every day. That's equivalent to carrying *every man, woman, and child in the country on a trip of almost 300 miles during the year.*

3. Improving Efficiency. Last year the average American freight train moved more tons of freight more miles per hour *than ever before in American railroad history!*



4. Improving the Transportation "Factory." In 1948 the railroads spent for improvements alone more than a billion dollars. That meant spending an average of *three million dollars per day*—for new streamlined passenger trains, new freight cars, and new, more efficient locomotives—for new track, signals, and shops to keep them rolling even more surely, more efficiently.

5. Paying Their Own Way. Railroads provide and maintain their roadway and equipment with railroad dollars, not taxpayers' dollars. In addition they pay about a billion dollars a year in taxes. These taxes help support schools, roads, and other public projects. They are not spent for the special benefit of the railroads.

For their services railroads received in 1948 an average of only about 1¼ cents for hauling a ton of freight one mile. And for carrying a passenger one mile, they got far less than they got a quarter of a century ago—when wages and the prices of railroad materials and supplies were only half what they are now.

To keep on making improvements in their service, railroads must continue investing money in better plants and facilities. To be able to do this they must make earnings in line with today's increased costs. For only adequate earnings can justify the huge investment required to keep America's railroads the most efficient, the most economical, and the safest mass transportation system in the world.

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ASSOCIATION OF AMERICAN RAILROADS

WASHINGTON 6, D. C.

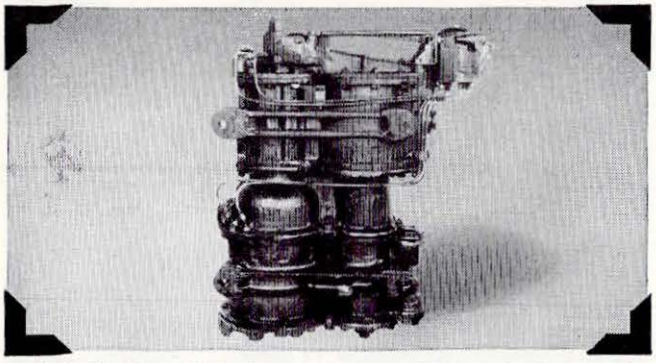
STANDARD ENGINEER'S REPORT

RPM CALOL

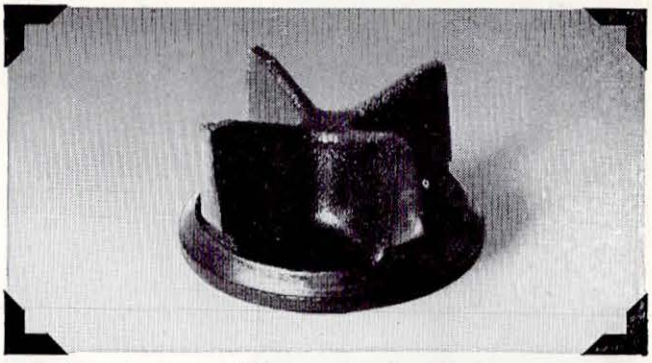
TEST DATA

UNITS	Westinghouse Locomotive Air Compressor 8½" Cross Compound
LUBRICANT	Calol Air Pump Lubricant
TEST PERIOD	1 year
LUBRICATORS	Westinghouse F-1-A
ENGINE	M-137-151 — 2-8-8-2
CONDITION	Main Line Operation - 1% grade
LOCATION	Oroville, Calif. - Portola, Calif.
FIRM	Western Pacific R.R. Co.

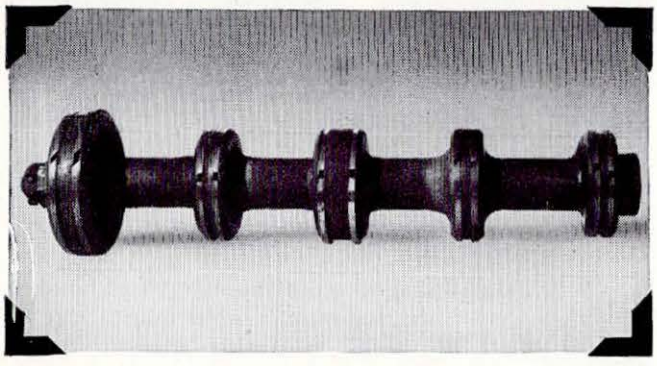
TEST SHOWS NEW OIL SUCCESSFULLY LUBRICATES BOTH STEAM AND AIR ENDS OF AIR COMPRESSOR



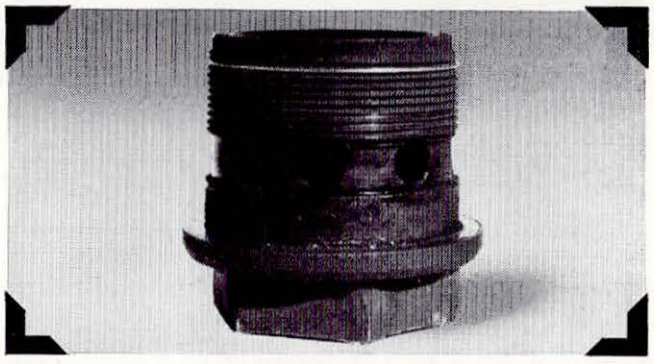
Calol Air Pump Lubricant was used for a full year in a compressor like this, on a locomotive in regular service. It was supplied to both ends by removing the plug between the lubricator's two reservoirs.



This Air Discharge Valve was in the compressor during the test. As the photograph shows, at the end of a year's operation, it was free of carbonaceous deposits. Calol Air Pump Lubricant resists oxidation.



No lacquer or gum appeared on the Steam Differential Valve and wear was negligible. Valve rings and steam piston rings stayed clean and unstuck. Calol Air Pump Lubricant resists highest temperatures.



The Air Discharge Valve Cage was clear of excessive oxidation deposits, as were air pistons and their lands and rings. The use of Calol Air Pump Lubricant eliminates the necessity for frequent cleanup jobs.

REMARKS: Another compressor of the same size and type was operated on the opposite side of the locomotive. During the test, it was lubricated with a conventional type of Grade A valve oil. This compressor's valves and valve cages became filled with an appreciable amount of carbon. Also, considerable deposits of carbon and lacquer accumulated in air discharge passages.

Calol Air Pump Lubricant eliminates these conditions because it is a doubly-compounded oil. It is highly stable both in use and in storage. Its special compounds help resist oxidation by air, heat and moisture. They keep pistons, rings, ring-land areas, air passages, valves and other parts clean, and maintain a tough lubricant film on hot and cool spots alike in the most severe operation.

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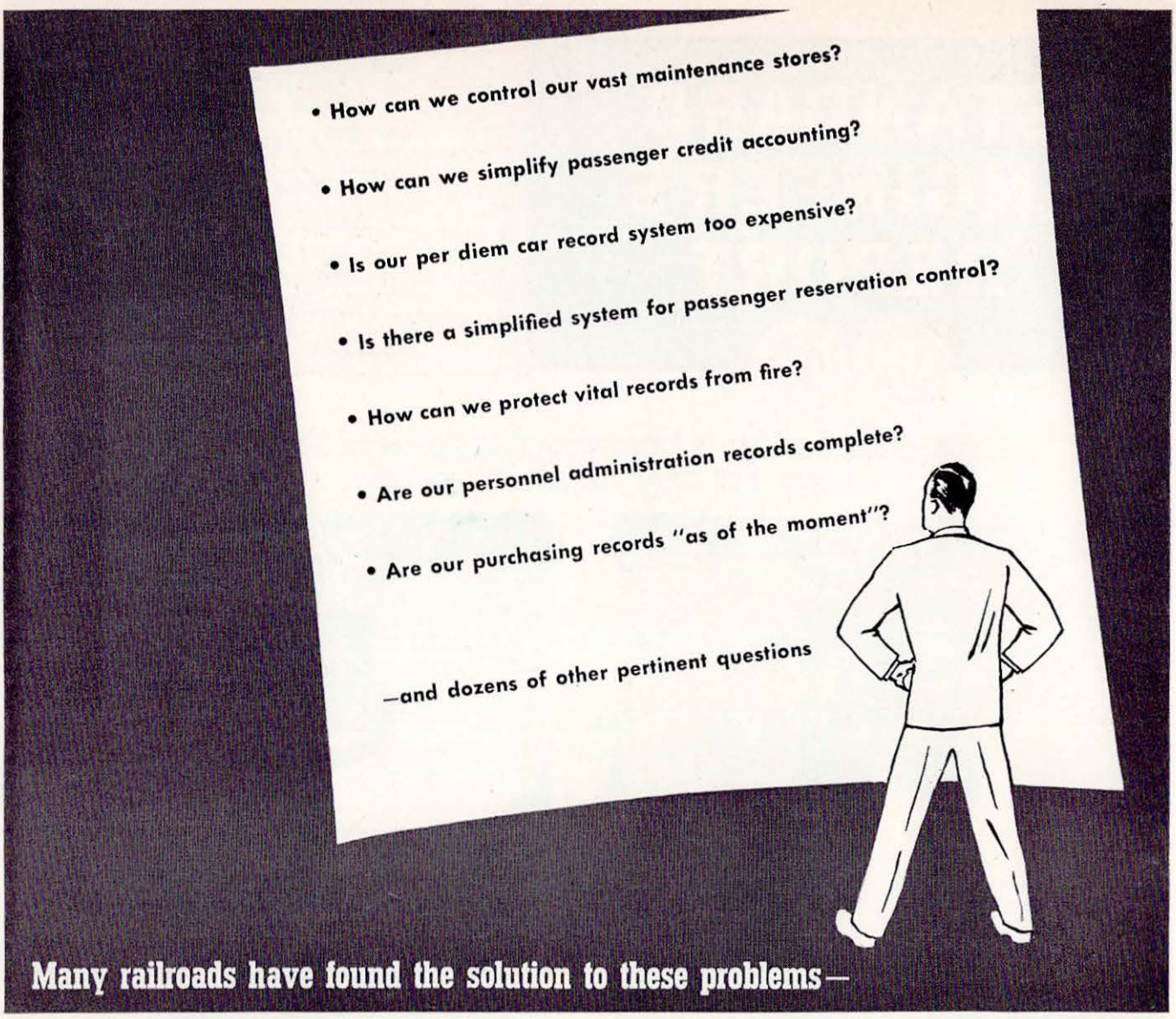
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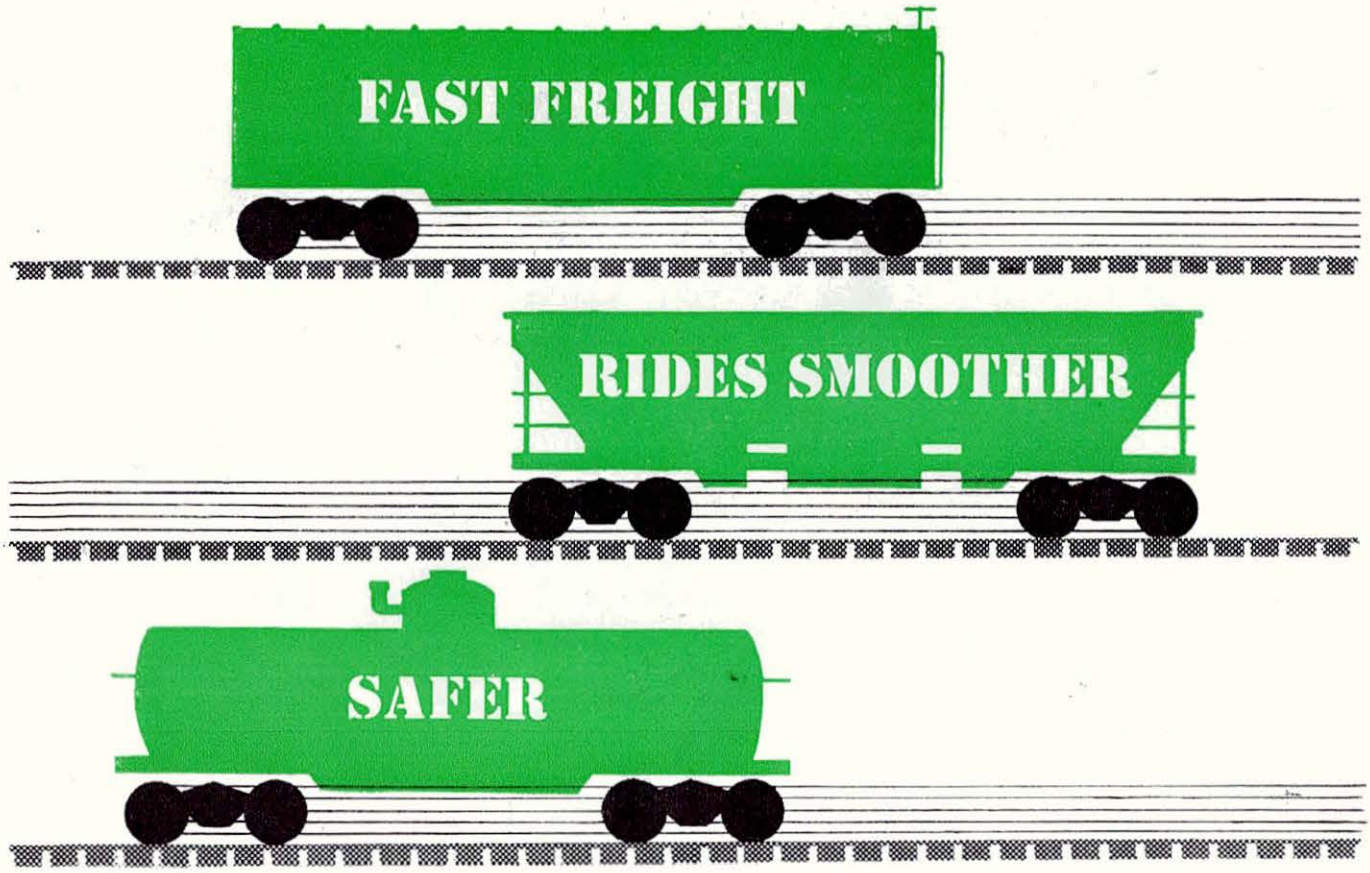
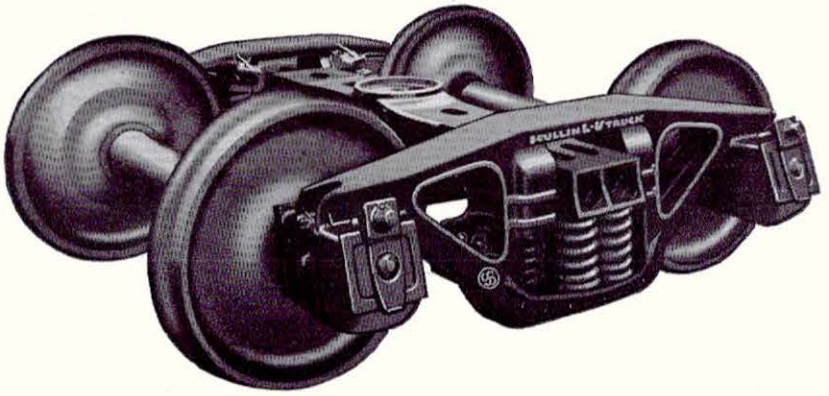


on the SCULLIN L-V TRUCK (LATERAL VERTICAL CUSHIONED MOTION)

cushions and controls *both* lateral and vertical motion
... *without* costly maintenance!



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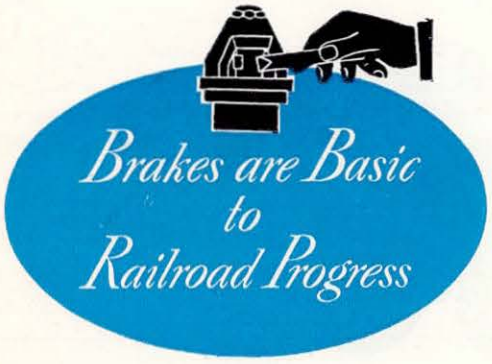
The H·S·C *brake*

doesn't have to wait for its "second wind"



One of the big advantages of the HSC Electro-Pneumatic Brake is its flexibility — derived from electro-pneumatic control.

With HSC Electro-Pneumatic Brakes, application is controlled electrically, instead of by pressure reduction in the brake pipe. The brake pipe continuously supplies storage reservoirs on each car, which are constantly recharged as air is used. HSC Brakes never have to wait for their "second wind."

To match the comfort and safety of your modern equipment with maximum comfort and safety in brakes, we recommend this modern combination:

"HSC" Electro-Pneumatic Brake . . . for brake flexibility to match modern train speeds, and unequaled smooth action. Speed Governor Control . . . for regulating brake forces to wheel speeds. "AP" Decelostat . . . for wheel slip detection to keep the wheels rolling.

Westinghouse Air Brake Co.

WILMERDING, PA.

Vol. 126, No. 3 January 15, 1949

RAILWAY AGE

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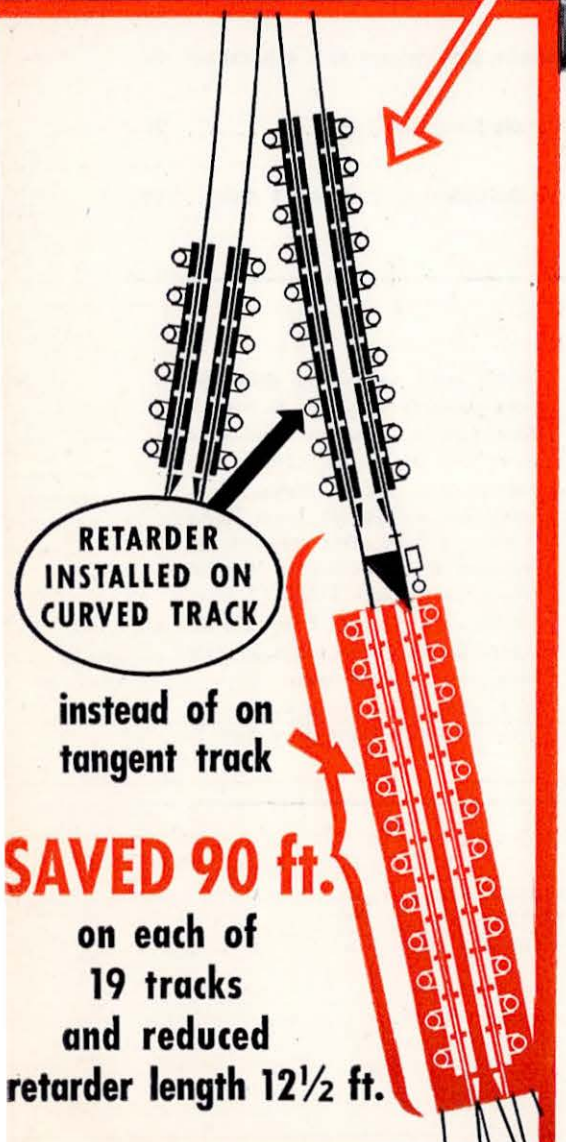
with "UNION" CAR RETARDERS!


RETARDER INSTALLED ON CURVED TRACK
instead of on tangent track
SAVED 90 ft.
on each of 19 tracks and reduced retarder length 12½ ft.

Here's another way in which the exclusive unit-construction feature of "Union" Car Retarders can help your railroad achieve a higher capacity hump yard in a limited area.

"Union" Car Retarders are made up of a number of individual retarding units—each with its power cylinder, brake beams, and shoes—and each only 6 ft. 3 in. long. This design and construction permits the installation and effective use of retarders on curved track. For the installation illustrated, 90 feet were saved on each of 19 tracks—and the required retarder length was reduced from 78 ft. 3 in. to 65 ft. 9 in.

Remember, this ability to use curved track is an exclusive feature of "Union" Car Retarders—one of many which contribute to their space-saving flexibility and efficiency. Our engineers will gladly show you how all those features combine for greatest utilization of available classification yard space. Write or call your nearest "Union" district office.

UNION SWITCH & SIGNAL COMPANY

SWISSVALE PENNSYLVANIA

NEW YORK CHICAGO ST. LOUIS SAN FRANCISCO

WEEK AT A GLANCE

THE POT BEGINS TO BOIL: In the words of R. E. Woodruff, president of the Erie, "the future of the railroads is largely political"—a statement which no informed person will neither want or be able to dispute. Because Mr. Woodruff's remark is so entirely true, news emanating from Washington has special significance for railroad people. And with the opening of the 81st Congress last week, the Washington (or political) pot has come to a rapid boil. The first vapors from this boiling pot—President Truman's state-of-the-union and budget messages, Congressional reports, new or renewed proposals for legislation, and other developments—are distilled in a number of stories in this week's news pages.

MODERN COMMUNICATIONS SAVE MONEY: An illustrated article starting on page 38 tells how the Baltimore & Ohio's $2,500,000 program of printing telegraph and telephone improvements is paying for itself by cutting in half the cost per message. A corollary, and very important, benefit derived from the modernization program is the improvement it has made possible in the road's "Sentinel Service" to shippers and receivers of freight.

P. R. R. DIESEL SHOPS: To provide more efficient inspection, maintenance and repair service for its passenger Diesel locomotives, the Pennsylvania has recently put into operation new and carefully designed facilities at Harrisburg, Pa. The facilities themselves, and the manner in which they will be used, are both described and illustrated in an article which begins on page 28.

"RECIPROCAL BUYING" COMING BACK: An editorial on page 21 reports the beginning of a large-scale revival of so-called "reciprocal buying"—the "one-armed bandit" of the railroad industry. This is a bad time, the editorial points out, for the railroads or any other business to engage in practices which invite attack by government officials, politicians or bureaucrats who are only too eager to find excuses for such attacks.

DIESEL CRANE CUTS COSTS IN SCRAP HANDLING: How a Diesel crane is saving about $1,600 a year, and also speeding up the Chicago & North Western's scrap-handling operations at Chicago, is described in a brief illustrated article beginning on page 36.

CAPITALISTS OR SOCIALISTS?: "The most persuasive and subversive arguments anybody has yet thought up for socializing practically all economic services" are contained in propaganda against toll highways issued by the National Highway Users Conference, and reviewed in this week's leading editorial. Directors of this conference and other users of tax-built transportation facilities doubtless like to think of themselves as champions of private enterprise, but by their actions—and likewise by their words—they have successfully "softened up" public opinion to a point where only a little eloquent demagoguery is needed to arouse public support for putting the government into almost any kind of business.

ANY QUESTIONS?: If anyone doubts the correctness of our editorial conclusions about the Highway User propaganda, let him recall the amazingly mild public reaction to President Truman's frankly socialistic suggestion that the government might engage in the steel business. No one could blame railroaders—hardened by years of unfair government-financed competition—if they got a few wry smiles out of the situation. Except, of course, that their own troubles will be magnified still more if the President's proposals for the St. Lawrence seaway and further expansion of other forms of socialized transportation are adopted.

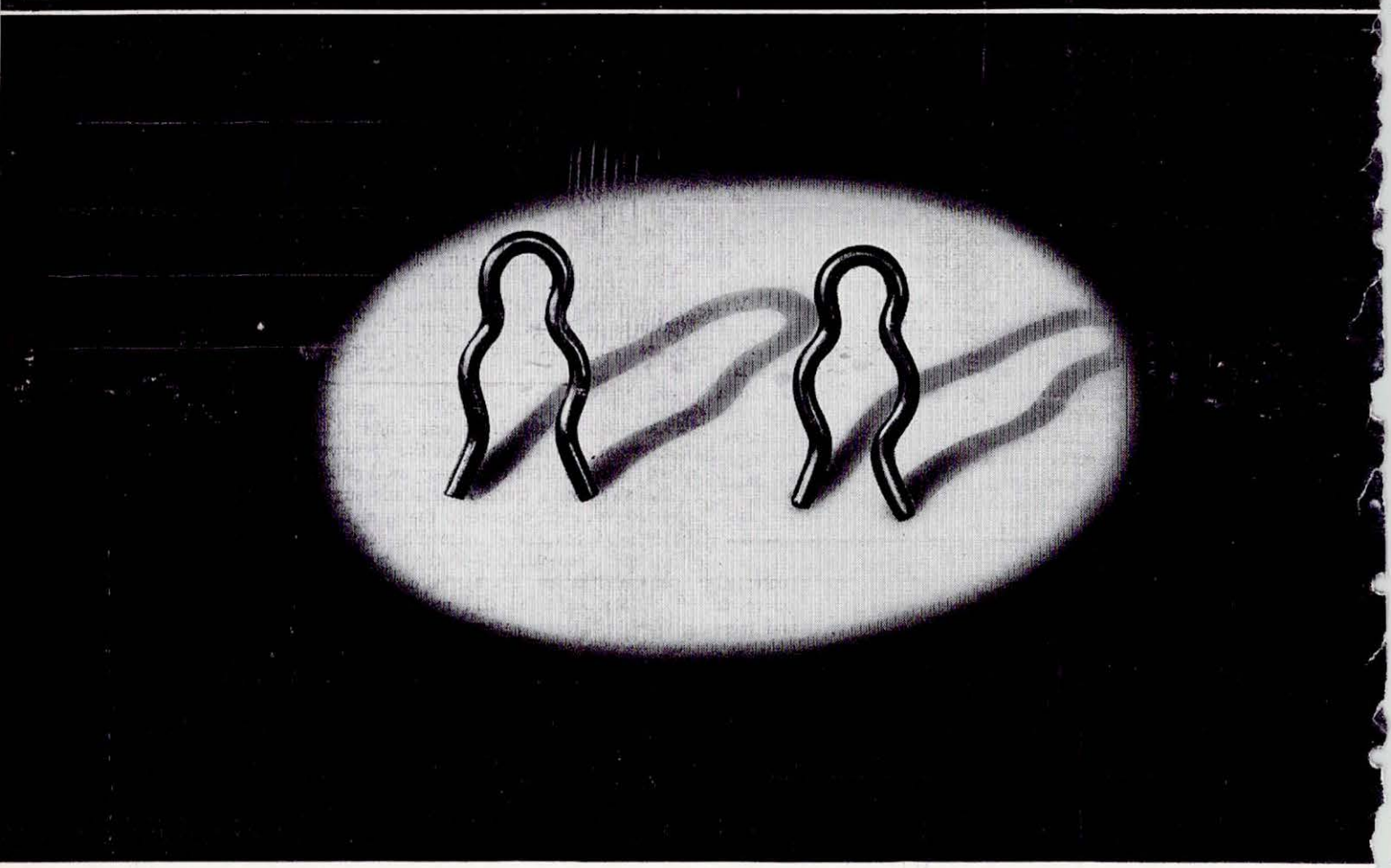
FRISCO ENTERS MOBILE: A progressive Class 1 railroad and a booming Southern port should be a mutually advantageous combination. Hence, both the St. Louis-San Francisco and the city of Mobile stand to profit from the former's entry to the latter through acquisition of the Alabama, Tennessee & Northern. Reported in the Financial columns of *Railway Age* on January 1, the acquisition and the reasons behind it are more fully outlined in this week's issue, on page 34.

GAS TURBINE TESTS: This week's opening feature article (page 22) is an abstract of a paper presented to the American Society of Mechanical Engineers by Alan Howard and B. O. Buckland, of the General Electric Company. They describe the results of year-long tests of a G. E. 4,800-hp. gas turbine designed primarily for locomotive use.

JOHN W. DAVIN: John W. Davin, president of the New York, Chicago & St. Louis for the past six years, died on January 7. An account of Mr. Davin's railroad career, and of the Nickel Plate's progress under his presidency, appears on page 27.

ENGINEERS' MECCA: The time—March 14-17. The place—Chicago. The occasion—the golden anniversary meeting of the American Railway Engineering Association and the coordinated exhibition—to be one of the largest of recent years—of the National Railway Appliances Association. Our News columns this week list those companies which have so far reserved space in the N.R.A.A. exhibit. The tentative program of the A.R.E.A. meeting, which will include many special features, will be published in an early issue.

ALL FOR THE WANT OF A HAIRPIN—



YOU recall, of course, the famous story, "For the want of a nail, the kingdom was lost." It illustrates the importance of seemingly insignificant things.

Similarly, we refer here to a simple hairpin clip — the injector control retainer for a General Motors Diesel locomotive.

These little clips (two per cylinder) cost only a penny apiece, but their function is vital, holding in place the pivot pins of the injector control linkage. If the retainer wasn't there and one of these pins slipped out, it could cripple a cylinder.

This is just one example of the importance of maintaining adequate quantities of spare parts to protect locomotives in service.

Because of General Motors standardization and high interchangeability of parts, protection for General Motors Diesel locomotives totals only a fraction more than two per cent of the original investment.

When you buy genuine General Motors replacement parts you get factory-guaranteed parts that are made to the same precision standards as the originals . . . of highest quality materials . . . rigidly inspected and tested for long-life service.

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ARE "HIGHWAY USERS" CAPITALISTS OR SOCIALISTS?

The National Highway Users Conference—an organization with a directorate which could almost pass for a "Who's Who in Private Enterprise"—is, nevertheless, distributing an adroit piece of Socialist literature which would do credit to the advocates of a "planned economy," of public housing and of socialized medicine. This tract is entitled "Why the Toll Method of Financing Roads Is Unsound." It is polemic against the free-enterprise principle of entrusting economic services to the voluntary actions of free men operating in the market place—and, instead, defends the coercive, Socialist principle of providing economic goods and services by government "planning," forcing people to pay for them whether they want them and use them or not. The tolls the "highway users" oppose are those on long-haul roads of the "super" category. Nobody has suggested that tolls offer a fair or practicable means of financing ordinary city streets or the local roads which connect farms with each other and with adjacent towns.

Persuasive Ammunition

The distinguished "highway users" put forward in this tract of theirs arguments against toll roads which need to be only slightly paraphrased to be turned into equally persuasive ammunition against any form of self-supporting economic service. Look at this one (we quote, the italics being ours):

"Everyone in a state benefits from good *roads*. . . . We have all helped pay for *roads* we may never personally have used. But other people have helped to pay for *roads* we do use."

The kind of long-haul roads the "highway users" are talking about are an economic facility providing exactly the same kind of service as roadways for the movement of railway traffic. Since sauce for the goose is also sauce for the gander, the argument quoted above may be fairly paraphrased in some such words as the following:

"Everybody in a state benefits from good *railroads*. So let's all pay for *railroads* out of taxes. Then we will all pay taxes to support some *railroads* we never use. But, then, other people's taxes will help pay for the *railroads* we do use."

No violation of logic or ordinary common sense is required to make a similar paraphrase to cover any economic service, e.g., housing, or the production and sale of automobiles, or of petroleum or dairy products or baker's wares.

The "highway users" present other arguments in favor of toll-free super-highways which cannot be itemized here for lack of space. We may discuss some of them later. All of them, however, are disingenuous and all of them are as applicable to providing any other economic service by taxation as they are to socializing the cost of transportation. The purpose behind this propaganda, of course, is to free the operators and customers of long-haul

highway transportation from paying all the costs of such service, thereby permitting them uneconomically to divert more and more traffic from the railroads to the highways. If the means thus adopted to achieve this goal could accomplish that result and nothing else, we should have to admire the "highway users" as resourceful competitors of the railroads, whatever we might think of their ethical standards. Unfortunately for the country, however, the situation is much more serious than one of mere inter-industry competition. The arguments the "highway users" are disseminating for the purpose of feathering their nests at the expense of the railroads and of the taxpayers are also *the most persuasive and subversive arguments anybody has yet thought up for socializing practically all economic services.*

It is just simply impossible to succeed in convincing the plain American that long-haul highway transportation should be paid for — not according to actual use of such facilities — but by the coercive method of general taxation, and at the same time prevent this American from extending such Socialist theorizing from highway transportation to all other economic services.

Socialism of Industry the Next Step

A lot of manufacturers are becoming frightened lest the federal government invade the business of steel manufacture. Well, why isn't this a perfectly natural and logical step—since very few manufacturers of steel or of anything else have ever had anything critical to say of the constantly growing governmental invasion of the transportation business? The time to put out a fire is when it starts in your neighbor's house — not for every householder in the block to wait until his own dwelling is in flames. Users of tax-built transportation facilities and those who have constantly lobbied for additional expenditures for government-built transportation plant (apart from that provided by special levies on the users), have succeeded in "softening up" public opinion to the point where all that is needed is a little eloquent demagoguery in order to arouse public support for putting the government into practically any kind of business.

If the general public had not been habituated to paying for highways coercively, in large measure according to *ability-to-pay* rather than in proportion to direct use; if they had not got used to seeing the government spending hundreds of millions to dredge out the rivers for the benefit, almost exclusively, of large industrial corporations operating their own barges; and if they had not seen the lavish way in which public funds are spent to provide facilities for the use of the air lines — would the people now be as ready, as many of them quite evidently are, to accept socialized housing, socialized medicine, socialized electric power, and socialized manufacture of steel?

A dozen years ago a spokesman for a large concern in the automotive industry made a speech before an important assemblage in which he argued for financing highways largely from general taxation instead of user charges, on the grounds that automobiles were indispensable necessities for a lot of families with incomes under $30 a week. These poor people, he contended, needed more and better highways but could not afford to pay for them—an argument which, of course, would apply with equal force to using tax money to provide clothing, fuel, food and housing. We related this incident recently to a man who is an expert in subversive political movements, raising the question how an industrial executive brought up in the American tradition of economic self-reliance could have come down to such a level of thinking and of argument. "Why do you suppose the automotive man ever thought up that argument?," the student of Red methods asked. "How do you know he didn't just read a speech written for him by a young man in his office, just fresh out of a college where some professor of economics or law had taught him all the tricks of fifth-columning against capitalism? We know from the public record that such subtle subversives were planted in the State Department. Why should we not suspect that they were also planted where they could undermine the integrity of business thinking and business policy?"

A chief railway executive tells us (but we cannot confirm the reference) that Karl Marx once defined a capitalist as a man who would jump at the chance to make a profit by supplying a hanging rope for his own neck.

SNOW-FIGHTING MACHINES MUST BE READY FOR USE

As traffic began to slow down during the blizzards that swept a large part of the Northwest shortly after New Year's day, frantic appeals came from the stricken area for equipment—any equipment—suitable for fighting snow. Some of the railroads traversing this territory are sufficiently large that substantial portions of their lines were unaffected and, theoretically, it was possible to shift equipment from these districts into the snowbound area. In some cases this arrangement worked, but not everywhere. More careful advance planning could have improved the performance.

The equipment used by railroads for fighting snow is of two general kinds, one of which consists

of those units, such as snow plows and switch heaters, designed solely for this purpose. Since this equipment is idle for most of the year, plenty of time is afforded to have it ready for the winter.

The other classification of equipment used in fighting snow comprises such machines as spreaders, tractor bulldozers and weed burners, which, while purchased primarily for other work, are also effective in dealing with snow and ice. It was with equipment of this general type that difficulty was encountered. Too frequently it developed that the needed equipment was in a shop undergoing repair.

The winter months are traditionally the time when maintenance-of-way work equipment is repaired or overhauled to prepare it for the next season's work. But, where such equipment is also useful for fighting snow or ice, should not precautions be taken to insure that necessary repairs will be made and completed before the snow season starts?

"RECIPROCAL BUYING" COMING BACK

Many incidents recently have come to the attention of *Railway Age* which indicate that there is beginning a revival on a large scale of so-called "reciprocal buying." This is the practice of giving or *promising* railways traffic to influence them to buy equipment, materials or fuel from one supplier rather than from another. *Railway Age* in 1929 and 1930, in both editorials and articles, published so many specific examples of this so-called "reciprocal buying" that it caused nation-wide investigations of the practice to be made by both the Federal Trade Commission and the Interstate Commerce Commission. After formal hearings, the Federal Trade Commission held two large industrial companies guilty of "unfair trade practices" because of the proved use of their traffic to influence railway purchases, and ordered them to "cease and desist" or subject themselves to heavy penalties.

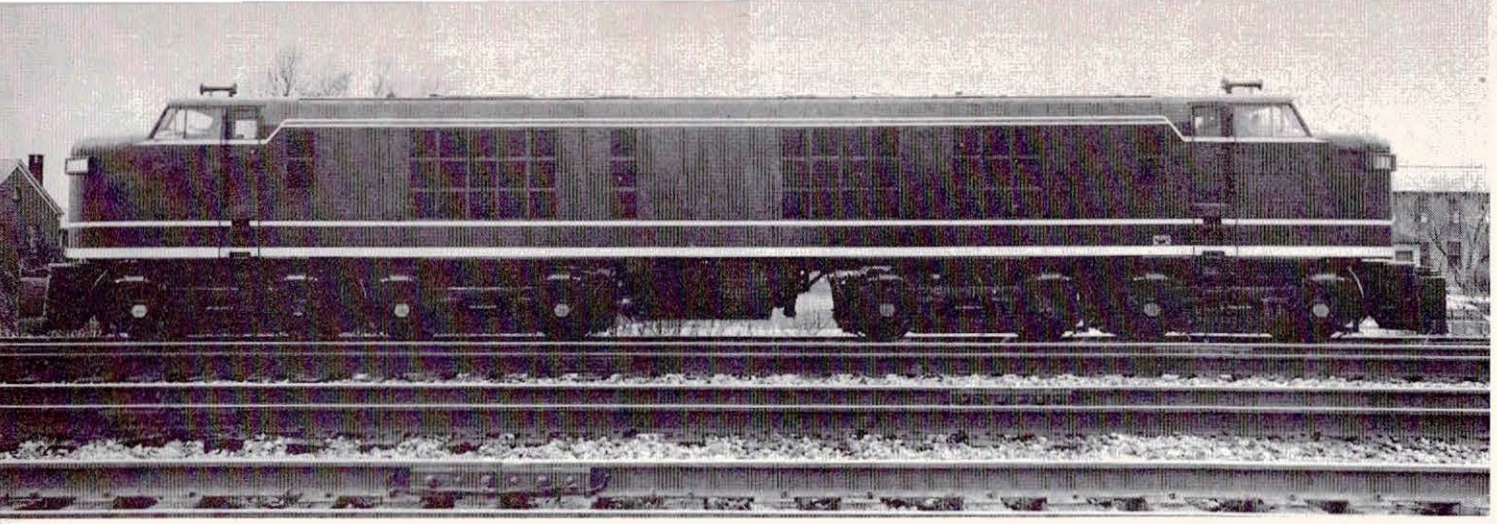
The present is a poor time for a business paper such as *Railway Age* to be exposing bad practices in business. To do so would be to play directly into the hands of the many officials and employees of a federal administration which is already too much disposed to attack business for every sin of commission or omission, real or imaginary, with which anybody charges it. But for the same reasons that this is a poor time for a business paper to *publicize* bad practices in business, it is a still worse time for business men to be engaging in bad practices. Government officials and employees have many sources of information about what occurs in business, and especially on the railroads, and it is more dangerous to private enterprise, and especially to the railroads, now than it ever was before for business men, including railway managers, to seek competitive advantages by means which they know would not bear publicizing.

Why some railway officers and manufacturers of equipment or materials "fall" for this so-called "reciprocity" without requiring any proof that they gain anything for their companies by it always has excited our curiosity. Suppose the technical and purchasing officers of a railway have decided that they should buy a certain product from Company A. Then there appears in the office of some officer of the railway, probably the chief traffic officer, a man who represents that he "controls" some hundreds, or thousands, or even hundreds of thousands of carloads of traffic, which he will give to the railway, if it will buy the product in question, not from Company A, but from Company B. He seeks the order for Company B, of course, because Company B has agreed to pay him to get it.

What happens if he succeeds in getting the business for Company B? It is reasonable to assume that the railway's technical and purchasing officers decided to buy from Company A because they believed that company would give the railway the most for its money. Hence, it must be assumed either (1) that the railway's technical and purchasing officers are incompetent, or that (2) when, to get a traffic advantage, it buys from Company B, it sacrifices the advantage of getting the most it can for each dollar it spends in buying, while at the same time discouraging efforts by its technical and purchasing officers to serve their employer efficiently.

And does a railway which thus trades purchases for traffic ever know that it actually gets the traffic? It never does. These men who pretend to "control" so much traffic go about promising the same traffic to one railway one day, to another railway another day and finally to all the railways of the country, with the result that there is no certainty that in the long run any railway ever gains a pound of traffic by so-called "reciprocal buying." There is, however, a certainty that every railway which lets its purchases be determined by traffic considerations thereby sacrifices efficiency in its technical and purchasing departments.

"Reciprocal buying" is a game that is played by experts to cozen suckers. It is the slot machine, the "one-armed bandit" of the railroad industry which always takes in much more money than it pays back. We know men that it has enriched, but they have been those who have been paid to get business by promising traffic, their "control" of which has been extremely doubtful and their delivery of which as promised has been even more doubtful. The biggest suckers we know are the railway officers who exchange purchases for *promises* of traffic and then do nothing to make sure that they get the traffic.



Alco-G.E. 4,500-hp. gas turbine locomotive on test track at Erie, Pa.

TESTS OF A 4,800-HP. LOCOMOTIVE GAS TURBINE

By ALAN HOWARD and B. O. BUCKLAND*

Division Engineer and Assistant Division Engineer, respectively, Gas Turbine Engineering Division, General Electric Company

[Note: An article describing the demonstration of this gas turbine at the Schenectady plant of General Electric appeared in the **Railway Age,** March 20, 1948, page 60. This turbine is now in test service on the rails in the locomotive described in the **Railway Age,** November 27, 1948, page 45.—EDITOR]

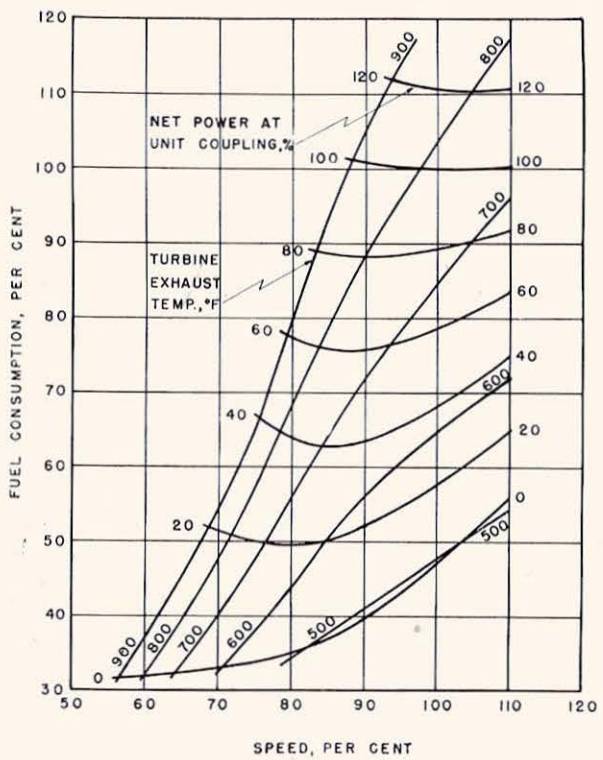


Fig. 1—Thermal performance of a 4,800-hp. gas turbine power plant

From September, 1947, to August, 1948, there was on test at the Schenectady, N. Y., plant of the General Electric Company a 4,800-hp. gas turbine designed primarily for locomotive use.

A total of approximately 700 hours of operating time was accumulated during the test period. After the first 100 hours, during which all operation was on Diesel fuel, about 80 per cent of the operating time has been on Grade 6 fuel oil, and the remaining 20 per cent on Diesel fuel oil. The results are encouraging with, as expected, some troubles having been encountered. The indications are that no major design changes will be required.

Design Rating

The design rating of this plant is 4,800 shaft horsepower, referred to 80 deg. F. ambient temperature and to 1,500 ft. altitude, or approximately 5,000 hp. at sea level. At the rated power condition, the thermal efficiency is slightly over 17 per cent. When operated with an inlet temperature of 1,400 deg. F., the output of the unit is approximately 6,000 hp. or 120 per cent of rating, and the thermal efficiency is approximately 18.5 per cent. For the present, the rating of the unit is being maintained at the original design value. Under cold-weather conditions, the unit has been run at actual output of 6,400 hp.

In general, the mechanical operation has been good with little vibration or expansion trouble. The combustion efficiency is high, 96 per cent and above, and after a few initial difficulties there has been essentially no trouble with carbon or similar combustion troubles.

* Abstract of a paper presented during the annual meeting of the American Society of Mechanical Engineers, New York, November 29, 1948.

The control system is such that the starting and operation of the unit is almost fully automatic.

During the operating period, approximately 350 starts have been made, and over 200,000 gal. of Bunker C fuel have been burned. The amount of air pumped is in the vicinity of 2.5 billion cu. ft. Somewhat over half the running has been on load cycles simulating heavy-load railway service.

Two troubles were encountered which are considered of major significance. The first was the loss of a second stage bucket due to fatigue failure in the dovetail. This occurred after 286 hours of fired time, 120 of which were at full load, and included 69 train-schedule load cycles. Relatively little damage to other parts of the unit was caused by this failure. The second was the deterioration of a first stage nozzle due to rather rapid oxidation, or washing away, of several of the nozzle partitions. The nozzle was used for a total of 492 hours, but almost all of the oxidation occurred in the last 106 hours of this period. No damage was caused to other parts of the unit by this failure.

Thermal Performance

The performance curves are shown in Fig. 1. Lines of constant net shaft power output are also shown. These curves are corrected to the standard ambient temperature of 80 deg. F. and to sea level pressure. The 100 per cent points correspond to 6,700 r.p.m., 5,000 hp. at sea level, and a heat input of a little under 75,000,000 b.t.u. per hr., based on the lower heating value of the fuel. The guarantee value of heat input is 75,600,000 b.t.u. per hr. These curves show that the exhaust temperature at rating is 780 deg. F. Based on this exhaust temperature the corresponding turbine inlet temperature is calculated to be 1,280 deg. F. The design inlet temperature of 1,400 deg. F. corresponds to an exhaust temperature of 850 deg. F.

The curves also show that at high powers the fuel rate is nearly independent of the operating speed, while at low powers there is a best fuel rate which occurs at reduced speeds. In locomotive operation, the control would set the speed to follow approximately this best fuel rate. For example, the normal idling condition is approximately 70 per cent speed, which requires about one-third of full-load fuel flow. If full speed is maintained at idling, the fuel required is shown to be 47 per cent of rated flow. This high constant-speed idling fuel is characteristic of a simple gas turbine with a single shaft. It is to be expected that the rather high reduced-speed idling fuel consumption can be definitely improved as the development progresses.

Modifications made to the combustion-chamber liners resulted in an increase in pressure drop from 4 to 6.2 per cent. It is expected the value of 4 per cent will again be attained soon. The most accurate and consistent fuel rate measurements were made before these modifications and Fig. 1 is based on 4 per cent drop.

It is difficult to obtain accurate information on the component efficiencies from tests of the complete power plant. The compressor efficiency at the rated condition, based on temperature rise and on impact pressures, is approximately 84 per cent at a pressure ratio of 5.9 to 1. The best efficiency occurs at a somewhat reduced speed and is slightly higher. The turbine efficiency at rated conditions, based on inlet impact pressure and on

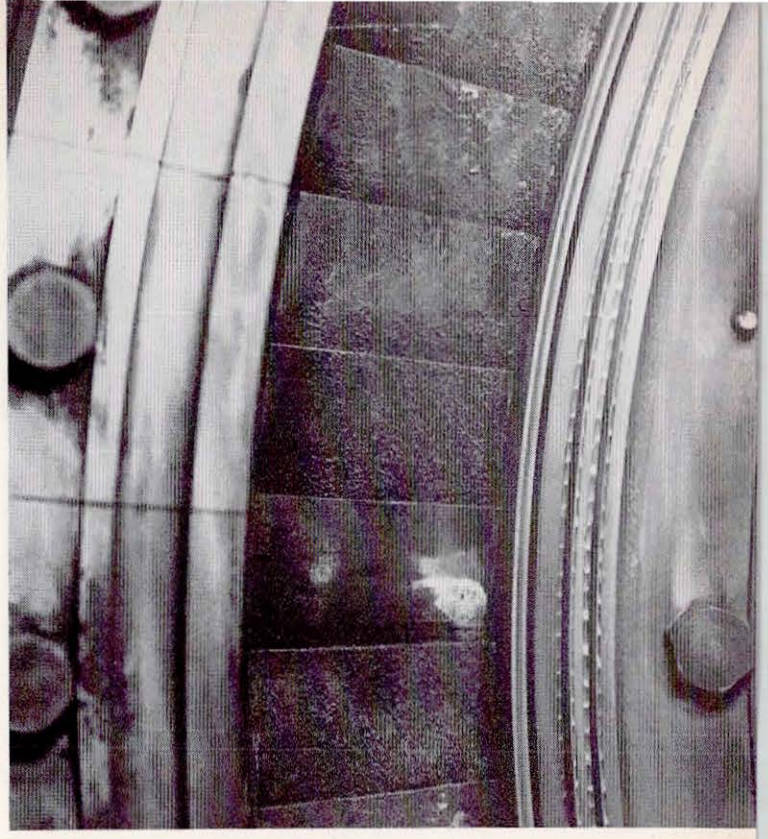


Fig. 2—Ash deposit on first-stage nozzle. One partition is closed

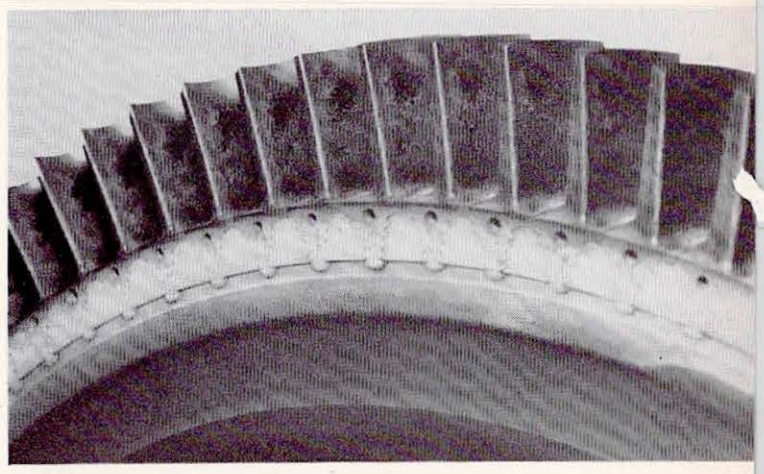


Fig. 3—Ash deposit on the buckets of the first stage

Fig. 4—Oxidized first stage nozzle partitions

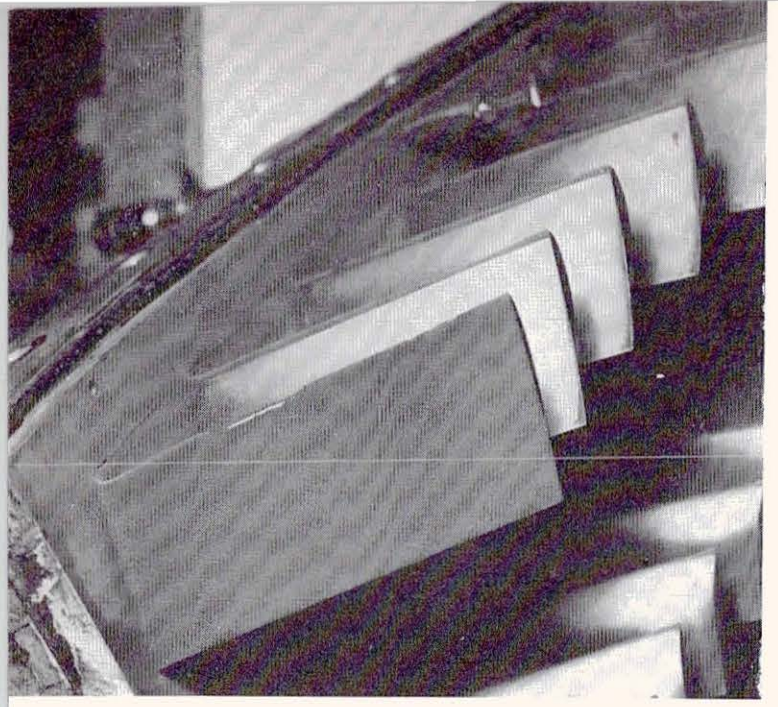


Fig. 5—Dirt deposit on blades at compressor inlet. Nearest blade was behind a strut

atmospheric exhaust flange pressure, is approximately 84 per cent. These machine efficiencies are in close agreement with expectation. The turbine is designed with a high axial leaving velocity, and the impact efficiency is about 88.5 per cent.

At the rated condition, the air flow of the unit is approximately 94 lb. per sec. which is a somewhat higher value than had been used in the design calculations of the output of the unit. This higher value is due about half to flow margin allowed in the design and half to the excellent blade shapes obtained in manufacture.

General Operation

The unit is started by means of one of the main locomotive generators used as a motor, the power for which is supplied by a Diesel-engine-driven generator. The motor brings it to firing speed, about 55 r.p.m., in about 45 seconds when the ignition is turned on and Diesel fuel is admitted to the nozzles. Within a few seconds ignition takes place. During the next 155 seconds the unit accelerates to idle speed, 4,700 r.p.m., where it runs under control of the governor, ready for load but with Diesel fuel. The fuel is then transferred from Diesel oil to Grade 6 oil by the turn of a switch, after which the unit is ready for load with Bunker C. Power for the acceleration is taken both from the motor and the unit itself up to approximately 3,500 r.p.m. where the driving motor is disconnected by means of reverse current relays. From this speed to idle speed the unit accelerates under its own power.

During the accelerating period and until idle speed is reached, the control mechanism regulates the fuel input to limit the maximum average exhaust temperature to about 875 deg. F. and to maintain it roughly at 750 deg. F. during most of the acceleration. Flame detectors incorporated in the control mechanism shut off the fuel and return the unit to firing speed if flame is not indicated within 30 sec. after fuel is turned on. The starting is designed to be fully automatic in the locomotive and starting tests show that this objective will be attained.

The transfer to Bunker C fuel can be made automatic when control devices are developed to bring the heavy fuel up to the proper temperature for use.

The transfer from Diesel to Bunker fuel was made during these tests by means of solenoid-operated valves and hence each transfer occurred in a fraction of a second. This sudden changeover subjects the fuel pump to a rather sizable temperature shock and, although in 350 starts only one pump failure occurred that can be assigned to this factor, steps have been taken to modify the mechanism to make the changeover more slowly.

With Bunker C there is a little more smoke visible than with Diesel fuel, but it is of slight character and is believed to be entirely unobjectionable.

Speed-Load Relationship

When the controls are set to maintain a load-versus-speed relationship similar to that desired on a locomotive, the no-load point corresponds to approximately 70 per cent speed. Thus acceleration of the unit is involved in attaining full load. Typically the time required to attain full load is about 30 seconds. The output increases steadily from zero at the beginning of this period until the final valve is reached.

This speed-load relationship can be readily adjusted to provide the most desirable characteristics for the particular application. If the unit is used to drive a constant-speed machine, the idling speed is, of course, full speed and consequently the unit does not accelerate during the increase in load. It is quite possible to go from no load to full load within one or two seconds. However, this subjects the unit to very rapid temperature changes which it is believed should be avoided unless such quick changes are definitely required. The control system, therefore, incorporates time lag features which limit the rate of change of temperature. With these features in operation, the time from no load to full load is normally about 20 seconds.

On several occasions, the unit has attained full power output in 3 to 3.5 minutes from a standing start. This time might even be shortened if there were a real requirement for quick starting. However, as in the case of load changes, more rapid temperature changes in the unit would be required, which are generally undesirable if they can be avoided. It is, therefore, considered that the time from start to full load should normally be more on the order of 5 minutes. This time is also greatly dependent on the amount of starting power it seems best to provide.

Many tests of the operation of the control mechanism have been made, and in some cases motion pictures have been taken of the instruments which indicate speed, load, exhaust temperature, and functioning of the control mechanism. These have demonstrated that full load can be dropped suddenly as by the opening of a breaker without difficulty of any kind. Full load can also be called for in the same manner and the unit will respond as desired. On sudden dropping of full load the speed overshoots the set value 1½ per cent. The exhaust temperature drops 260 deg. F. with a time constant of 0.6 seconds. By time constant is meant the time for the change to reach 63.2 per cent of its final value.

The control system is such that the starting and operation of the unit is almost fully automatic.

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The curves also show that at high powers the fuel rate is nearly independent of the operating speed, while at low powers there is a best fuel rate which occurs at reduced speeds. In locomotive operation, the control would set the speed to follow approximately this best fuel rate. For example, the normal idling condition is approximately 70 per cent speed, which requires about one-third of full-load fuel flow. If full speed is maintained at idling, the fuel required is shown to be 47 per cent of rated flow. This high constant-speed idling fuel is characteristic of a simple gas turbine with a single shaft. It is to be expected that the rather high reduced-speed idling fuel consumption can be definitely improved as the development progresses.

Modifications made to the combustion-chamber liners resulted in an increase in pressure drop from 4 to 6.2 per cent. It is expected the value of 4 per cent will again be attained soon. The most accurate and consistent fuel rate measurements were made before these modifications and Fig. 1 is based on 4 per cent drop.

It is difficult to obtain accurate information on the component efficiencies from tests of the complete power plant. The compressor efficiency at the rated condition, based on temperature rise and on impact pressures, is approximately 84 per cent at a pressure ratio of 5.9 to 1. The best efficiency occurs at a somewhat reduced speed and is slightly higher. The turbine efficiency at rated conditions, based on inlet impact pressure and on

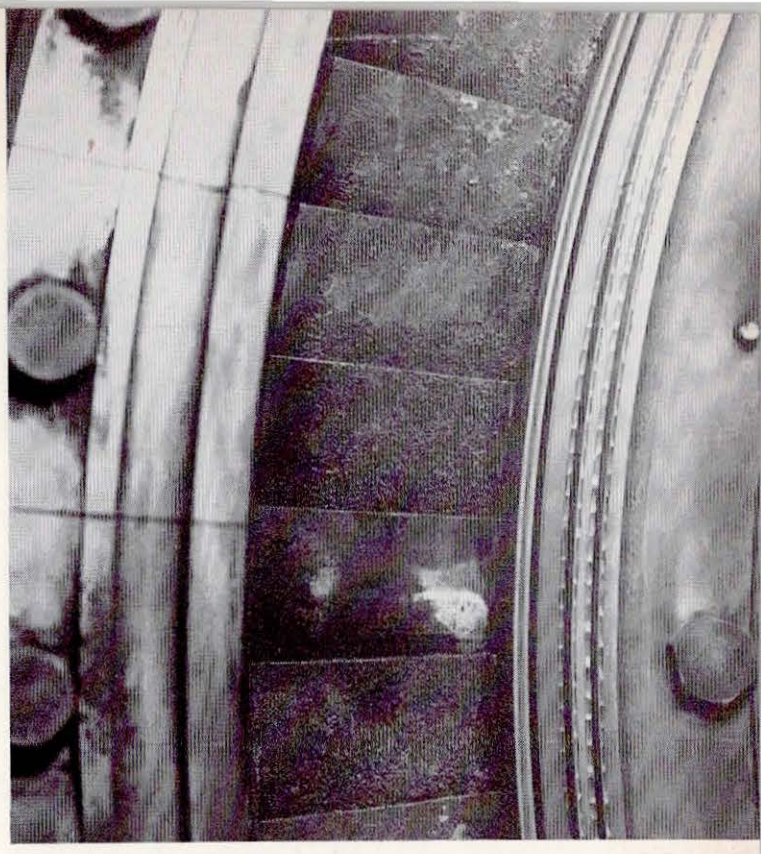


Fig. 2—Ash deposit on first-stage nozzle. One partition is closed

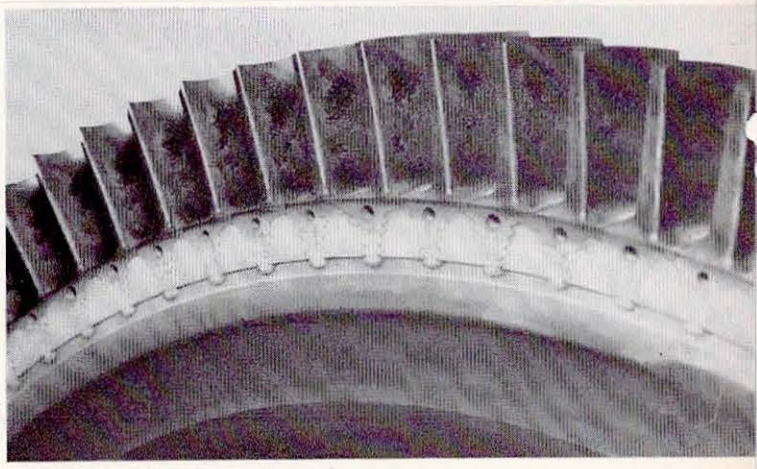
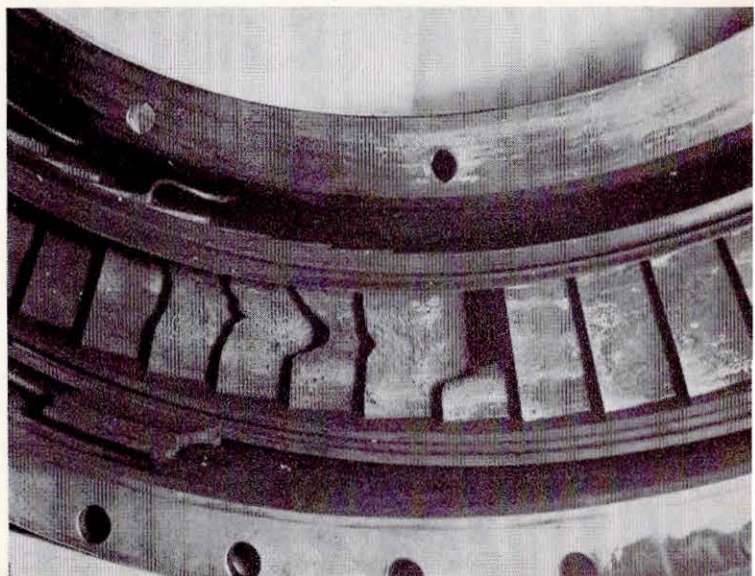


Fig. 3—Ash deposit on the buckets of the first stage

Fig. 4—Oxidized first stage nozzle partitions



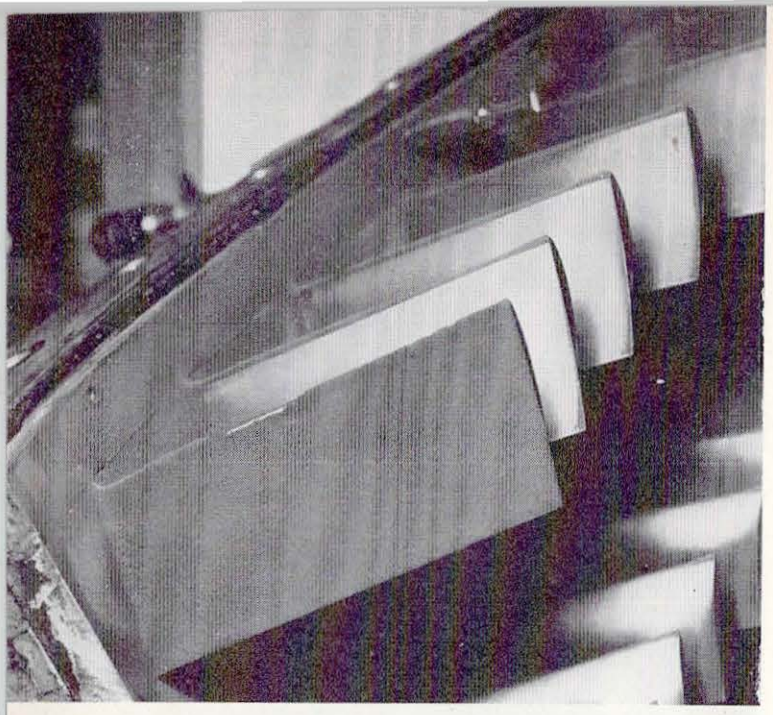


Fig. 5—Dirt deposit on blades at compressor inlet. Nearest blade was behind a strut

atmospheric exhaust flange pressure, is approximately 84 per cent. These machine efficiencies are in close agreement with expectation. The turbine is designed with a high axial leaving velocity, and the impact efficiency is about 88.5 per cent.

At the rated condition, the air flow of the unit is approximately 94 lb. per sec. which is a somewhat higher value than had been used in the design calculations of the output of the unit. This higher value is due about half to flow margin allowed in the design and half to the excellent blade shapes obtained in manufacture.

General Operation

The unit is started by means of one of the main locomotive generators used as a motor, the power for which is supplied by a Diesel-engine-driven generator. The motor brings it to firing speed, about 55 r.p.m., in about 45 seconds when the ignition is turned on and Diesel fuel is admitted to the nozzles. Within a few seconds ignition takes place. During the next 155 seconds the unit accelerates to idle speed, 4,700 r.p.m., where it runs under control of the governor, ready for load but with Diesel fuel. The fuel is then transferred from Diesel oil to Grade 6 oil by the turn of a switch, after which the unit is ready for load with Bunker C. Power for the acceleration is taken both from the motor and the unit itself up to approximately 3,500 r.p.m. where the driving motor is disconnected by means of reverse current relays. From this speed to idle speed the unit accelerates under its own power.

During the accelerating period and until idle speed is reached, the control mechanism regulates the fuel input to limit the maximum average exhaust temperature to about 875 deg. F. and to maintain it roughly at 750 deg. F. during most of the acceleration. Flame detectors incorporated in the control mechanism shut off the fuel and return the unit to firing speed if flame is not indicated within 30 sec. after fuel is turned on. The starting is designed to be fully automatic in the locomotive and starting tests show that this objective will be attained.

The transfer to Bunker C fuel can be made automatic when control devices are developed to bring the heavy fuel up to the proper temperature for use.

The transfer from Diesel to Bunker fuel was made during these tests by means of solenoid-operated valves and hence each transfer occurred in a fraction of a second. This sudden changeover subjects the fuel pump to a rather sizable temperature shock and, although in 350 starts only one pump failure occurred that can be assigned to this factor, steps have been taken to modify the mechanism to make the changeover more slowly.

With Bunker C there is a little more smoke visible than with Diesel fuel, but it is of slight character and is believed to be entirely unobjectionable.

Speed-Load Relationship

When the controls are set to maintain a load-versus-speed relationship similar to that desired on a locomotive, the no-load point corresponds to approximately 70 per cent speed. Thus acceleration of the unit is involved in attaining full load. Typically the time required to attain full load is about 30 seconds. The output increases steadily from zero at the beginning of this period until the final valve is reached.

This speed-load relationship can be readily adjusted to provide the most desirable characteristics for the particular application. If the unit is used to drive a constant-speed machine, the idling speed is, of course, full speed and consequently the unit does not accelerate during the increase in load. It is quite possible to go from no load to full load within one or two seconds. However, this subjects the unit to very rapid temperature changes which it is believed should be avoided unless such quick changes are definitely required. The control system, therefore, incorporates time lag features which limit the rate of change of temperature. With these features in operation, the time from no load to full load is normally about 20 seconds.

On several occasions, the unit has attained full power output in 3 to 3.5 minutes from a standing start. This time might even be shortened if there were a real requirement for quick starting. However, as in the case of load changes, more rapid temperature changes in the unit would be required, which are generally undesirable if they can be avoided. It is, therefore, considered that the time from start to full load should normally be more on the order of 5 minutes. This time is also greatly dependent on the amount of starting power it seems best to provide.

Many tests of the operation of the control mechanism have been made, and in some cases motion pictures have been taken of the instruments which indicate speed, load, exhaust temperature, and functioning of the control mechanism. These have demonstrated that full load can be dropped suddenly as by the opening of a breaker without difficulty of any kind. Full load can also be called for in the same manner and the unit will respond as desired. On sudden dropping of full load the speed overshoots the set value 1½ per cent. The exhaust temperature drops 260 deg. F. with a time constant of 0.6 seconds. By time constant is meant the time for the change to reach 63.2 per cent of its final value.

A sudden dropping of load followed in two seconds by a sudden application causes a speed overshoot of 1.5 per cent and an undershoot of 1.3 per cent. The temperature changes up and down 260 deg. F. with a time constant of about 0.5 seconds.

Performance of the Turbine

The turbine efficiency, which has proved to be close to expectations, has not been altered appreciably by the combustion of over 200,000 gal. of Bunker C. The ash in the fuel does cause nozzle and bucket deposit to form, however. The thickest deposit found during the tests is shown by the photographs of the first-stage blading in Fig. 2 and Fig. 3. These pictures were taken after 286 hours. The same amount of running with oil of different composition but having more ash content formed less deposit. The unit was disassembled three times for inspection and each time the ash deposit was washed off the blading in order to inspect it properly for cracks or defects. The deposit appears to be water soluble. Usually the principal constituent is sodium sulphate, and the ash is sometimes high in vanadium oxide. From frequent observation during running periods between inspections, it appears that the deposit builds up on the blading as shown and remains constant thereafter. Undoubtedly much more running experience is required to verify fully this favorable result.

The turbine stator parts are cooled with air drawn over them by a small fan located on the main turbine rotor. Measurements of the temperature of these cooled parts indicates that this system is working effectively. The design in which the main turbine structure is made from ordinary steel rather than high-cost stainless materials having large expansion coefficients seems to be working out well. The turbine wheels are cooled by bleeding a small amount of air from the compressor into the four wheel spaces. It was found necessary to extract the air for the high-pressure side of the first-stage wheel from the eleventh compressor stage instead of from the ninth stage as originally expected. It was also found necessary to modify the arrangement of the wheel spaces on the second stage for more effective cooling. With these changes the wheel cooling is operating satisfactorily and the wheel centers are maintained at around 400 deg. F. under normal operating conditions.

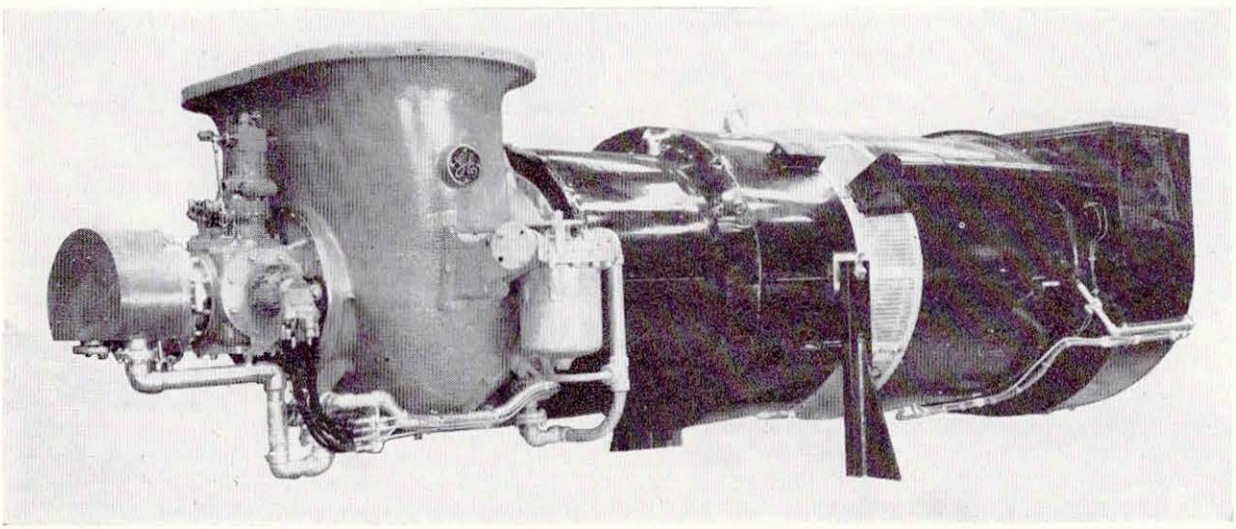
At the end of 286 hours of operation, a second-stage bucket was lost at full load and full speed. Investigation showed this was because of a fatigue failure in the dovetail just at the bucket root. Subsequent examination showed that approximately half of the remaining buckets were also cracked in the same general location in varying degrees.

After the failure, new second-stage buckets were put in the same rotor. Based on over 400 hours of further running, with careful inspections, it is believed that this trouble has been eliminated.

The damage to the rest of the machine was surprisingly small, and with the exception of bearings and packings, which were rubbed, no parts were replaced except the second-stage buckets themselves. The damage to the exhaust hood consisting of a few tears in the sheet-metal passages was readily repaired by welding. There was at no time any evidence of the failure external to the machine except the vibration and noise.

Nozzle Oxidization

After a total of 492 hours of operation, the first-stage turbine nozzle was oxidized to such a point as to require replacement. The nozzle was inspected frequently. These inspections showed essentially no signs of oxidation through 392 hours of operation. However, after 100 hours of fired time it was first noticed that oxidation was taking place in the neighborhood of the pitch line on some of the nozzle partitions. Subsequent inspections were made at frequent intervals, and the effect on the rate of oxidation of using three different fuel nozzles was tried. The progress of the oxidation was observed to be approximately proportional to the time of operating and independent of the fuel nozzle used. Finally one of the partitions was found to be burnt in two. Subsequently the machine was disassembled for inspection and replacement of the tur-



bine nozzle, the condition of which is shown in Fig. 4.

Further investigations of the behavior of nozzle-partition alloy were initiated by heating the material in a furnace in air both with and without contact with oil ash. The principal constituents of the alloy are 16 chromium, 25 nickel, 6 molybdenum, balance iron. Two ash compositions synthesized with the analysis of the ash scraped from the turbine nozzle as a basis were used.

Analyses of Ash From The Turbine Nozzles

	Ash No. 1 (Per Cent)		Ash. No. 2 (Per Cent)
SiO_2	....		1.20
Al_2O_3	....		1.16
PbO	2.54		3.83
CuO	1.63		.83
FeO	13.94	(Fe_2O_3)	6.16
CaO	5.80		5.76
MgO	2.14		2.73
NiO	3.34		4.80
V_2O_5	1.60		14.26
Na_2SO_4	68.84		59.25
Total	99.83		99.98

The results show that the alloy used is, from a corrosion and oxidation standpoint, a poor material for nozzle partitions, at temperatures above 1,500 deg. F. At such temperatures, under some conditions, it is subject to a type of rapid disintegration, known by some metallurgists as catastrophic oxidation in which the molybdenum acts as an oxidation catalyst. The resistance to oxidation in a clean air stream falls very rapidly above 1,500 deg. F. and it appears to be sensitive to the fluxing action of at least some types of ash.

The combination of the temperature pattern, the partition material properties and the quality of the oil used which, during the oxidation period, contained a high quantity of a very corrosive ash, are thought to be sufficient reason for the observed oxidation of the nozzle partitions. The fuel oil during this period contained as much as 2.5 per cent ash of a composition indicated by ash No. 2 in the table. In previous running the ash content was much lower, particularly in vanadium oxide.

Since changes were made somewhat over 200 more hours of operation have been accumulated, part of the time being with high-ash-content oil. There has been no sign of oxidation and it appears the trouble has been eliminated or greatly reduced in severity. In the future, first-stage nozzles will be made of materials better suited to this application as an added precaution.

The remaining parts of the turbine have shown essentially no effect of the operation during the tests with the exception of the splines on the flexible coupling between the turbine and the compressor. These have shown some galling but this is not serious and it is expected to be eliminated by a harder material and the application of an increased lubricating-oil flow.

Compressor and Combustors

Experience with similar compressors for aircraft service has shown that if lubricating oil is permitted to enter the compressor with the air over any extended period a dirty varnish-like coating is formed on the blades and the efficiency decreases appreciably. This plant has been designed so that no lubricating oil from the unit can enter the air path of the compressor, and the favorable results of the test show this precaution to be fruitful.

The air pumped during the tests came from a more or less normal factory atmosphere, next door to a steel foundry and laden with somewhat more than the usual cinders from boiler stacks. Under these conditions the blades accumulate a small amount of rather dry dirt as shown in Fig. 5. This does not, however, appear to affect the efficiency which was carefully watched for any sign of deterioration. The compressor has been cleaned each of the three times the plant was disassembled for inspection principally because the cleaning was necessary to inspect the blading properly for cracks or other defects. It has been concluded that infrequent or no cleaning of the compressor will be necessary unless the atmospheric air is laden with lubricating oil or similar substances.

The combustor design together with the fuel nozzles is a result of extensive testing on a full-scale test stand coupled with operating experience in the unit. At present, the combustors give a good outlet-temperature distribution with short flame lengths. Their ignition characteristics are good and carbon does not appear to deposit under any conditions of operation including long-time idling. The combustion efficiency is high with either Diesel fuel or Bunker C and the fuel used does not seem to affect the efficiency.

Work is proceeding to improve the life of the combustion-chamber liners and there is every indication that satisfactory life will be attained. In any case, the replacement of the combustion-chamber sections is a quick job. Two men can replace the sections of all six chambers in about one hour.

Fuel nozzles have been the subject of much experimentation and development, nearly all of which has been devoted to the air-atomizing type. At present, two types of nozzle are being used, each of which gives satisfactory performance over the wide range of conditions required in gas-turbine operation, including operation on either Bunker C or Diesel fuel.

Fuel Pumps

The nozzles are supplied by an 18-cylinder variable-displacement pump. Two different kinds of pumps, from two manufacturers, were used in the tests. Each of these had a number of minor defects as might be expected in a first model, but the tests have demonstrated that the defects can be easily eliminated and that each pump performs satisfactorily.

Two pump failures occurred on test. One was because of a mechanical difficulty which has been eliminated by a design change. The second pump failure was due to temperature shock occurring in switching suddenly from cold Diesel oil to hot Bunker C. The switching is now done over a period of about one minute.

One pump has now been used a total of 500 hours, two others 50 hours each and two others 25 hours each. During the early parts of these intervals some minor difficulties occurred, such as leaks, unbalance and piston sticking. During the third operating period of the plan these were entirely eliminated and the existence of a fuel pump was almost forgotten.

JOHN W. DAVIN DIES

Allied Photo Service.
John W. Davin

John W. Davin, president of the New York, Chicago & St. Louis since December 16, 1942, and chairman of the Wheeling & Lake Erie since May 28, 1947, died at his home in Shaker Heights, Ohio, on January 7.

Mr. Davin was born on March 10, 1892, in Montgomery, W. Va., and was educated in the public schools there and, from 1908 to 1910, at New River State College, a branch of the University of West Virginia. He entered railroad service in December, 1910, as a check clerk at Handley, W. Va., with the Chesapeake & Ohio, and subsequently served, at that point, as yard clerk, chief clerk to the general yardmaster, and car distributor. Transferred in 1916 to Huntington, W. Va., as assistant chief car distributor, Mr. Davin, within a few months, was appointed chief car distributor. In 1920 he was named chairman of the allotment commission. Three years later he was made assistant superintendent of transportation.

In 1931 Mr. Davin became assistant general superintendent of transportation and two years later he was appointed assistant to the president. Promoted to vice-president in 1939, he retained that position until his election as president of the New York, Chicago & St. Louis.

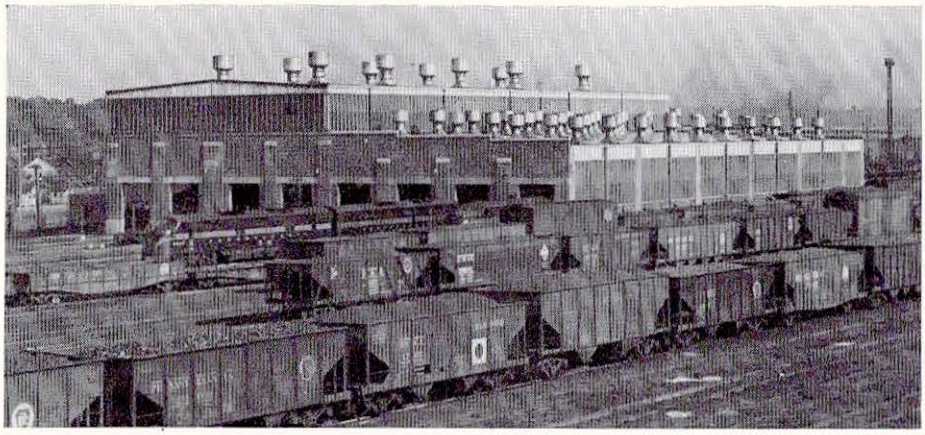
The Nickel Plate was incorporated in April, 1923, as a consolidation of the New York, Chicago & St. Louis Railroad Company and its subsidiary, the Chicago & State Line; the Toledo, St. Louis & Western; and the Lake Erie & Western and its subsidiary, the Fort Wayne, Cincinnati & Louisville. The Chesapeake & Ohio, acting under authority granted by the Interstate Commerce Commission on December 29, 1937, obtained control of the Nickel Plate by acquiring 167,300 shares of common stock which had been held by the Alleghany Corporation and 25,100 additional shares owned by the Virginia Transportation Corporation. In August, 1947, Robert J. Bowman, then president of the C. & O., announced that the C. & O. directors, after fully considering the C. & O.'s future position in Eastern trunk line territory, had voted to distribute the road's entire holdings of 192,400 Nickel Plate common shares to its common stockholders as a dividend. The distribution was made on November 10 of the same year and C. & O. control of the Nickel Plate was terminated.

Before C. & O. control of the Nickel Plate was relinquished, negotiations between the two carriers in which the latter sought to purchase the C. & O.'s holdings of W. & L. E. stock were resumed. At the end of June, 1947, I.C.C. approval of the transaction was granted and the Nickel Plate purchased 115,423 shares of prior lien stock at $96 a share and 1,658 preferred shares at $97.35 a share. This stock, together with that already owned, gave the Nickel Plate an ownership of 246,145 common shares, 16,458 cumulative convertible 5½ per cent preferred shares and 115,423 prior lien 4 per cent shares, which amounted to 68 per cent of all outstanding W. & L. E. stock.

On May 1, 1948, the W. & L. E. redeemed all its 5½ per cent preferred stock, including that held by the Nickel Plate. Funds for the $10,213,958 operation were obtained by the W. & L. E. through a $5,000,000 loan from the Chase National Bank and by issuing to the Nickel Plate a 2½ per cent note for $1,645,800. An additional $3,568,158 from the road's treasury was used. This step increased the Nickel Plate's stock control of the Wheeling to 79.67 per cent. Now before the I.C.C. is a proposal whereby the Nickel Plate would lease the Wheeling's lines and certain other properties and rights for 99 years and, in turn, assume liability for the Wheeling's securities. The lease would be perpetually renewable under similar terms. (See *Railway Age* of August 23, 1948, page 62, and November 27, 1948, page 50.)

At the end of 1947 the Nickel Plate operated 1,687.12 miles of road, all in the Great Lakes industrial area. Its main lines extend from Chicago through Fort Wayne, Ind., and Cleveland, Ohio, to Buffalo, N. Y.; from Toledo, Ohio, southwesterly to St. Louis, Mo.; and from Sandusky, Ohio, through Muncie, Ind., and Frankfort to Peoria, Ill. Connections are made with other roads at Buffalo, Toledo, Chicago, St. Louis, Peoria and elsewhere.

During his presidency, Mr. Davin devoted himself to strengthening the financial position and the physical condition of the Nickel Plate. In those six years, fixed charges were reduced substantially—from $5,600,682 in 1943, the first full year in which he was president, to $3,466,523 in 1947—through the reduction of mortgage debt and the refinancing of outstanding issues at low interest rates. Payment of regular dividends on the preferred stock was resumed in 1946, and payment of arrearages on the same stock also was begun. After payment on March 15, to stockholders of record February 25, of a recently declared preferred dividend of $7.50 a share, arrearages will amount to $73.50 a share, a reduction of $10.50 a share in little more than one year. (An illustrated feature story on the operations of the Nickel Plate was published in the October 2, 1948, issue of *Railway Age*.)



General view of the Harrisburg Diesel shop. Running maintenance work is done in low bay and heavy repairs in high bay

PENNSYLVANIA BUILDS LARGE DIESEL-REPAIR SHOP

Well-planned facility recently placed in service at Harrisburg, Pa., is the Pennsylvania's principal repair point for its large and growing fleet of passenger-train Diesel locomotives

One of the largest and most completely equipped Diesel locomotive repair shops to be built in this country is that recently placed in service by the Pennsylvania at Harrisburg, Pa., the eastern terminal for Diesel operation on that road. Intended solely for repairing and servicing passenger-train locomotives, the new shop and its related facilities—built at a cost of approximately $3,545,000—will serve as the principal repair point for the large fleet of passenger Diesel power now being built up by the Pennsylvania.

The new shop building embodies a light repair section for terminal inspection and servicing, which contains four tracks, each served by three working levels, and a heavy repair section, with three repair tracks and a wheel-release track. Also in the building are a machine shop, two storerooms, a parts-cleaning room, a chemical laboratory and offices. Supplementing the shop, but outside, are fuel, water and sand facilities and engine washing and rinsing machines.

A noteworthy feature of the shop is the heating system, in which radiant heating, blast heaters and unit heaters are employed in combination, through fully automatic controls, to produce comfortable working conditions during the winter months. Also of interest is the lighting system which, through the use of fluorescent, mercury-vapor, and incandescent lamps, furnishes ample illumination for night operations.

In addition to the new shop at Harrisburg, the Pennsylvania is now constructing a similar shop for freight Diesels at Enola, Pa., the important freight terminal just across the Susquehanna river from Harrisburg. When completed this shop will duplicate the Harrisburg facility in nearly every respect, except in the location of the various supporting facilities, such as the service platform and sanding plant.

The more important passenger and freight lines of the Pennsylvania in the territory east of Harrisburg and Enola are electrified, while trains operating west of these points are hauled by steam or Diesel power. Thus, when the road began to make extensive use of Diesel power in its east-west passenger service, Harrisburg became the logical site for the principal repair point for these locomotives. Similarly, the freight terminal at Enola was a "natural" for the repair shop for freight Diesels.

Will Care For 125 Units

During the past few years the Pennsylvania has acquired a number of passenger Diesels. At present it has on hand or on order a total of 125 units, aggregating 274,000 hp. These locomotives are now being assigned to all important through passenger trains operating between Harrisburg and Chicago, 713 mi., and St. Louis, Mo., 856 mi. This service includes 14 "name" trains in each direction daily as well as several other trains which make additional intermediate stops. Diesel power is also used on a number of trains operating between intermediate points west of Harrisburg.

The new Diesel terminal is located about one mile west of the Harrisburg station in an area directly west of an existing 30-stall enginehouse. It is a rectangular steel-frame structure, 200 ft. by 268 ft. in plan, with its long dimension generally parallel with the tracks in an east-west (timetable) direction. A 102-ft. extension, 97 ft. wide and one story high, adjoins the east end of the main structure, flush with its north wall. The northeast corner of the extension adjoins the west wall of the enginehouse.

The north half of the main building contains the heavy repair shop, and rises to a height of 51 ft. above

the surrounding ground level, while the south half, containing the four light repair tracks, is only 35 ft. high. The tracks in the light-repair section—numbered, from the south, 1 to 4, inclusive—are through tracks and enter large doorways in each end of the building, while those in the high section—numbered 5 to 8—enter only from the west end and terminate near the east wall of the main building. Each of the 12 doorways is equipped with a motor-driven rolling steel door. The extension, which lies in the area directly east of the heavy repair shop, contains the machine shop, a light storehouse, a parts cleaning room and offices on the main floor, while its basement contains storage space for heavy spare parts and for lubricating oil. The floor level of the extension is elevated 4 ft. 8 in. above that of the shop.

Additional storage room for heavy parts is provided in the enginehouse, directly east of the extension. Four stalls of this structure nearest the new building were taken out of service and the area thus released was converted for additional heavy storage, being separated from the remainder of the enginehouse by a curtain wall. A part of the small space between the east wall of the extension and the curved outer wall of the enginehouse was enclosed and roofed over to form a passageway between the two buildings. This passage contains two ramps, one of which leads from the enginehouse storage area to the main floor of the extension, while the other leads to the basement storeroom.

How Locomotives Are Handled

Directly north of the shop is a two-track "service station," complete with a sand plant, fuel and water facilities, and locomotive washing and rinsing machines. Still farther north are fuel oil unloading and storage facilities, the latter having a total capacity of 335,000 gal.

The arrangement of the shop, the servicing facilities and their supporting trackage is such that a locomotive may be serviced, washed, inspected and made ready for a return trip in minimum time and with one reverse movement. After cutting off from eastward trains at Harrisburg, the locomotives move westward over the inbound Diesel track to the shop area where the road crews are released. Hostlers then take charge of the locomotives and move them to the service platform on one of two tracks where they are sanded, fueled, watered, washed and rinsed progressively. Following these operations, they are moved farther west to clear the Diesel shop lead-track switch, after which they are reversed and are moved eastward 550 ft. on one of the four light repair tracks of the shop. The rolling doors are opened by push buttons mounted on posts beside each track, within reach of the locomotive cab. Other push buttons are located just inside the doors.

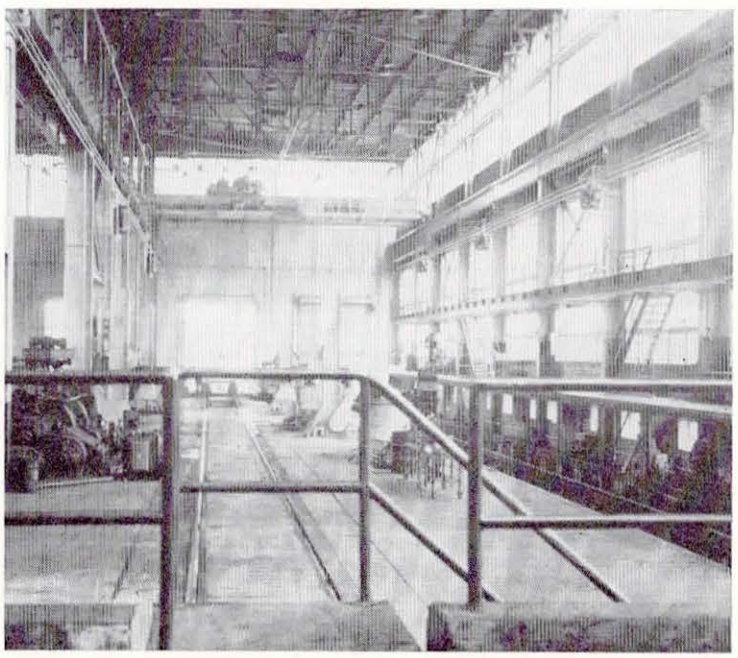
In the shop the locomotives are inspected and given such light repairs as may be necessary, and are then moved out the east end of the building to a parking area to await dispatching. When dispatched, the locomotives are moved, with road crews in charge, over the outbound Diesel track to the passenger station.

Details of Building

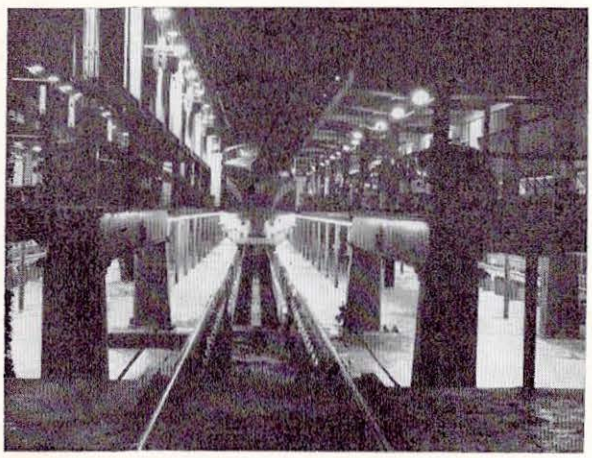
The exterior of the new shop presents an attractive appearance attained through the use of brick, corrugated wire glass and corrugated Transite in a highly functional design. The west wall of the structure is of brick to a height of 35 ft.—the roof level of the low section. Above this level in the high, or north, section, this wall is a continuous panel of corrugated wire glass 13 ft. high, topped by a narrow band of corrugated Transite extending to the roof.

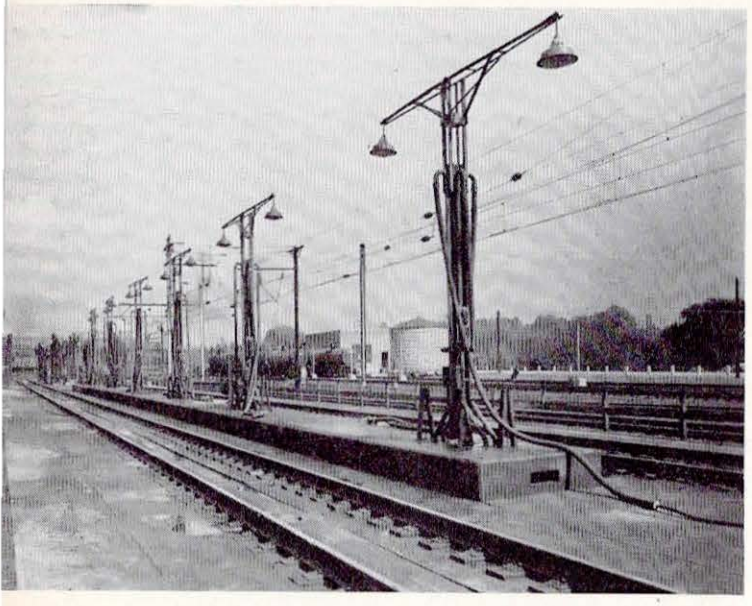
The sidewalls of the structure are largely of corrugated wire glass and Transite above base courses of concrete and brick. The glass is used to form windows 20 ft. by 20 ft., while the Transite is used in panels

Right—Ample daylight is admitted through the large glass areas in the walls, as in this part of the high section of the shop



Below—A night view in the light repair section. Inspection and servicing of running gear are facilitated by long rows of fluorescent units located beneath the deck-level platforms





20 ft. wide and 10 ft. high, directly above the windows. The adjacent windows and Transite panels are separated by narrow panels of brick, which extend to the roof line in the south wall and to a height of 35 ft. in the north wall. Above this level in the north wall is a continuous panel of wire glass, 13 ft. high, extending to the roof, except for a 2-ft. high band of Transite just below the eaves. The south wall of the high section rising above the roof of the low section, is entirely of wire glass, except for the narrow band of Transite just below the roof.

The south wall and the walls of the one-story extension are similar to the construction described, but the Transite panels above the large windows in these walls extend to the roof line.

Interior Arrangement

The interior of the shop is arranged to provide ample working space and maximum convenience for the mechanics engaged in the repair and servicing operations. The repair tracks, for example, are spaced from 23 ft. 8 in. to 28 ft. apart, permitting ample working areas between them. The four running repair tracks and two tracks in the heavy repair shop are elevated 2½ ft. above the finished floor level, being supported on H-beam columns set 5 ft. apart. Each of the running repair tracks is equipped with an inspection pit, 230 ft. long. These features permit increased freedom of movement for men working on and inspecting the running gear of locomotives.

Deck-level platforms, 4 ft. 8 in. above the rail, are located on each side of the four running repair tracks. Three of these are island platforms, while the fourth—serving the south side of Track 1—is located between this track and the south wall of the shop. One of the island platforms is 12 ft. 8 in. wide, while the others are 14 ft. wide. The platform south of Track 1 is 6 ft. wide. All of the deck-level island platforms are 256½ ft. long, and extend west from the east wall of the building.

Diesel roof-height platforms are provided above the island platforms between Tracks 1 and 2 and between Tracks 3 and 4. These are the same width as the platforms beneath them, but are only 179 ft. long and are roughly centered lengthwise above the lower platforms. The deck-level platforms are concrete slabs, supported on steel posts, but those at Diesel roof level are of steel-plate construction with safety treads. Two stairways at each platform permit movement between the various working levels. Small electrically operated drawbridges at the east end of the shop at deck level span the tracks, and thus permit movement between the several platforms.

A one-ton hand-operated traveling crane operates directly above each running repair track within the limits of the building. These units are employed to remove the roof hatch covers, for changing pistons and for similar work.

Heavy Repair Section

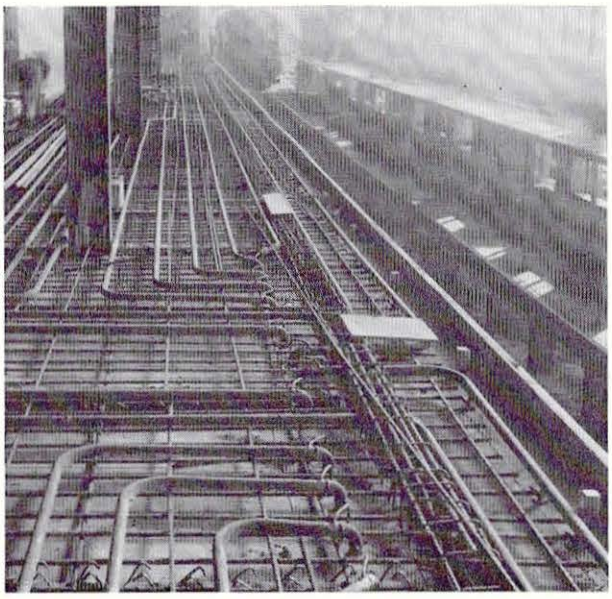
Two of the four tracks in the heavy repair section—Tracks 5 and 8—are elevated 2½ ft. above the floor in the same manner as the tracks in the light repair section. The remaining floor area in this section, however, is at track level. Tracks 5 and 8 are served at deck and roof levels by elevated platforms, which are located on the south and north sides of these tracks, respectively. Tracks 5, 7 and 8 are used for repair purposes, while Track 6 is used for storing pairs of wheels and trucks, and is stubbed at both ends, the west end being 54 ft. west of the building. An end platform at deck level extends across the east end of this section of the shop.

The dismantling of locomotives in the heavy repairs section of the shop is facilitated by two combination electric overhead cranes—one serving Tracks 5 and 6 and the other for Tracks 7 and 8. These cranes have capacities of 30 tons on the main hoists and 10 tons on the auxiliary hoists. Each hoist is designed to move laterally over the full span of the crane while the cranes

Facing page (left)—General view of the six-position fuel and water station

Facing page (right)—The sanding plant is capable of delivering sand to all sand boxes on a Diesel unit at one spotting. Here two locomotives are being serviced

Right—Radiant heating coils in a portion of the shop, before the concrete was placed



travel the full length of the shop. The cranes are operated by pendant controls at the floor level. Four 50-ton body jacks, serving Track 6, and a 54-in. wheel lathe are also provided in this section of the shop.

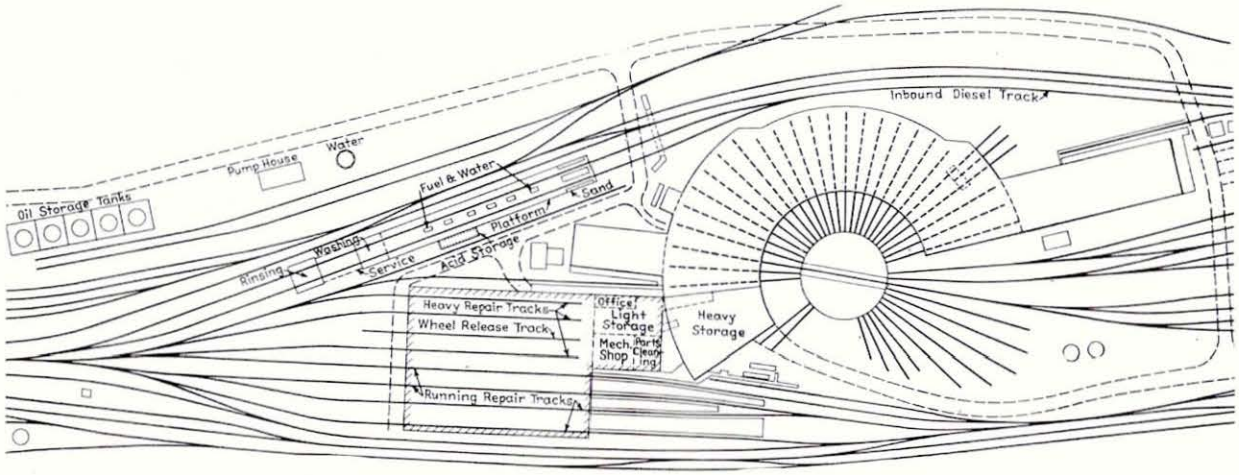
The changing of locomotive trucks and pairs of wheels is facilitated by a drop pit, 23 ft. 9 in. wide and 22 ft. deep, which extends across all eight tracks in the shop, just inside the west wall. The pit contains two drop tables of the nesting type with a table top for each track. Six of the tops have the track rails elevated 2½ ft. above the surface, while the remaining two tops are of the flush type. Thus, when each top is in its assigned position, its surface is on the same level as the finished floor surrounding it.

Two of the tops are of sectional construction so that individual pairs of wheels, with their traction motors, may be dropped, while the other wheels of the truck remain supported on the table.

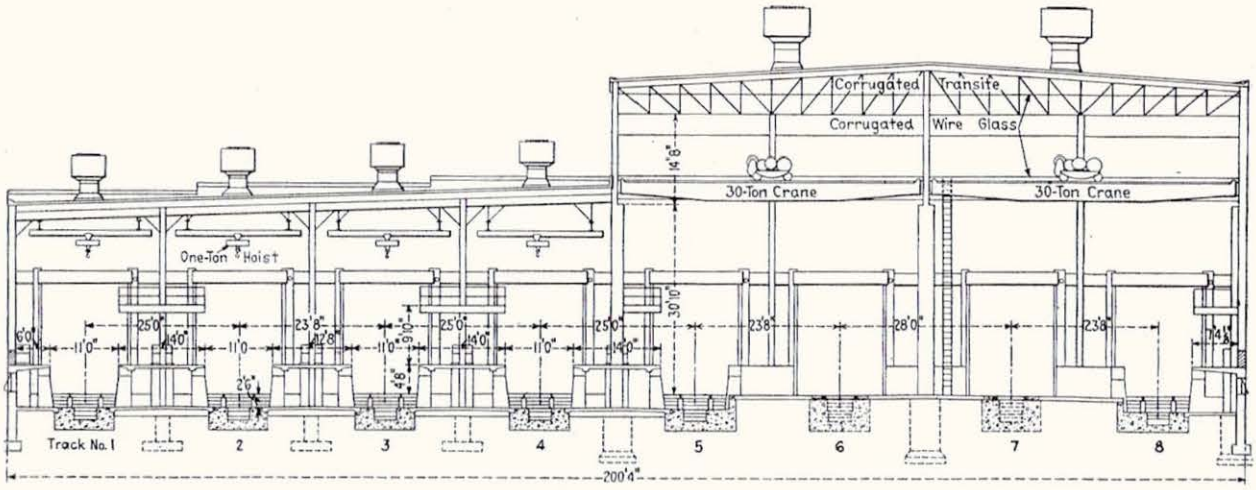
The movement of the tables in the pit is electrically controlled from positions near each track. The controls involve a system of push buttons and an indicator panel which not only shows the position of each table with respect to all the tracks, but also when each table is properly alined with any particular track. Body supports located at each track, except Tracks 6 and 7, assist in the wheel and truck changing operations.

As already mentioned, the one-story extension at the east end of the building is given over to machine shop, office and storehouse activities. The machine shop and a small electric shop are located in the southwest corner of the extension and occupy an area 56 ft. by 49½ ft. Directly east of the machine shop, and separated from the remainder of the building by concrete-block walls, is the parts cleaning room, 39 ft. by 49½ ft. The entire north side of the extension, 49½ ft. by 96 ft., is occupied by the storeroom for lightweight parts, except for a 15-ft. by 56-ft. area in the northwest corner, which contains offices.

A concrete-block wall separates the extension from the main building, and doorways in this wall, 7 ft.



The arrangement of the shops and supporting facilities



Cross-section of the main shop building, looking west

6 in. wide and 16 ft. high, fitted with metal-clad, sliding doors, connect the main building with the machine shop and the storeroom. A similar door is located in the wall between the cleaning room and the machine shop. The partition between the machine shop and the storeroom is of 1-in. wire-mesh fabric above a concrete-block base.

The office area is enclosed by metal-frame and glass partitions which extend to a height of 10 ft. 6 in. above the floor. This enclosure, which has a metal and plaster ceiling, was prefabricated and installed after the building was completed.

Effective Lighting System

Great care was taken to insure adequate lighting under all conditions. The large glass areas in the walls of the shop furnish a generous amount of daylight. This is supplemented by a number of 400-watt mercury vapor lamps and 1,500-watt incandescent lamps, suspended from the ceiling, the number and location of each type being such as to simulate daylight as nearly as possible. In addition, a number of incandescent fixtures on the underside of the elevated platforms help eliminate dark areas in these locations. Finally, continuous rows of two-tube fluorescent units on each side of the running repair tracks, beneath the deck-level platforms, afford strong illumination of the undercarriages of locomotives to facilitate inspection and repair.

The interior of the shop is decorated in light colors, except for those locations which become soiled readily. Such areas include the lower parts of the walls, the roof columns, the platform posts and the rail supports, all of which are painted dark green to a height of 4 ft. above the floor or platform level. Above this height, the walls and columns, as well as the ceilings, are painted light pastel green. All moving machinery in the shop is painted focal yellow, while the pipes are painted various colors to designate the material contained in them.

The heating and ventilating system installed in the shop is designed to provide comfortable working conditions during the winter months. Employing radiant heating, blast heaters and unit heaters in combination, the entire system is thermostatically controlled, and is designed to maintain a temperature of 60 deg. F. in the shop proper, 65 deg. F. in the machine shop, and 70 deg. F. in the offices.

Radiant-heating pipe grids are embedded in the concrete floor of each deck-level platform in the shop, including the platform at the east end of the heavy repair tracks, but not in the platform along the south side of the building. This type of heating is also installed in the machine shop and in the offices. The location of radiant-heating grids in the elevated platforms permits greater heating efficiency as radiation is obtained both above and below the platform slabs. This part of the heating system is designed for a total output of 2,181,500 B.t.u. per hour and circulates 13,670 gal. of water per hour, at 140 deg. mean temperature.

The water is heated in a heat exchanger which employs steam from the local power plant. This unit and the pumps for circulating the hot water are located in the basement. Approximately 20,400 ft. of 1¼-in. wrought-iron pipe was used in the radiant heating system.

The blast heaters, of which 18 are employed, are located in openings in the side walls of the main building, just above ground level but below platform level. These are 4 ft. 3¼ in. wide and 2 ft. 7⅛ in. high, and the heating coils are warmed by steam at 125-lb. pressure. When in operation, fresh air from the outside is drawn through these units, thereby replacing the stale air exhausted from the building, each heater warming the air in the process at the rate of 800,000 B.t.u. per hour.

Supplementing the radiant heating and the blast heaters are 31 Grid unit heaters, located throughout the building. Six of these, rated at 700,000 B.t.u. per hour, are placed near the engine doors in such a manner as to direct warm air toward them to counteract the cold air entering when the doors are open. Smaller unit heaters, ranging down to 140,000 B.t.u. per hour, are provided at other locations. In general the unit

heaters are elevated 15 ft. above the deck platform level.

The heating controls are such that the radiant heating system is the first to function. When this system cannot supply all the heat required, the blast heaters begin to operate. Finally, when the heat requirements exceed the capacity of the blast heaters and the radiant system, the unit heaters begin to function. The six 700,000-B.t.u. heaters near the engine doors have separate thermostats which function when the temperature near the doors drops below 50 deg. F. In addition, all of the unit heaters have manual controls so that they may be used to circulate air without steam being supplied.

Stale air and engine fumes are exhausted through 53 electrically-operated fan ventilators in the roof. Of these, 10 are 48-in. ventilators each with a capacity of 19,900 cu. ft. per min., located over the heavy repair shop. Forty 36-in. ventilators—ten over each track—are used in the light repair shop, while three such ventilators are used to ventilate the cleaning-room section of the machine-shop extension. These 36-in. ventilators have capacities of 11,100 cu. ft. per min. each. In warm weather fresh air is supplied through the engine doors and through commercial projected sash in the windows.

Service Facilities

The service platform, 40 ft. wide and 380 ft. long, as has been pointed out, serves two tracks and is arranged so that complete servicing can be done as locomotives move past it. The tracks are on 19-ft. centers, and the base of the track rails are flush with the platform surface. At the east end of the platform is a sand plant, designed to deliver sand to both front and rear sand boxes of a Diesel unit at one spotting. The plant provides storage for 75 tons of wet sand and 40 tons of dry sand. Wet sand is delivered to an overhead storage bin by an automatic skip hoist and is then delivered by gravity to a steam drier which dries and screens 1¼ tons of sand per hour.

The fueling and water station is directly west of the sand plant. This embodies 6 fueling points spaced 30 ft. to 35 ft. apart, at which the fuel-oil and water lines are brought together. Each fueling point embodies a cluster of 5 vertical pipes, there being two water pipes, two oil pipes and one Fire-Foam pipe in each cluster. Delivery of oil and water to locomotives is by hose lines with quick-assembly connections and trigger-type nozzles, the rate of delivery in each case being 1,000 gal. per min. Remote-controlled oil pumps, operated from push buttons on the platform, are located in a nearby pumphouse. The delivery of water is also by means of remote-controlled pumps.

The final units in the service line are two engine washers and two rinsing machines which wash and rinse the locomotives as they pass through these units on either of the service tracks.

Provision has been made for the local storage of 335,000 gal. of fuel oil immediately north of the shop area in five steel storage tanks, each of which holds 67,000 gal. Oil is brought to the side by tank car and is unloaded at a 16-position two-track unloading station. Unloading is accomplished by means of two electrically-operated pumps, each rated at 300 gal. per min.

To supplement these storage facilities, the Pennsylvania is planning to construct two larger storage tanks at Lucknow, one mile west of the Harrisburg shop, to serve both the Harrisburg and the Enola terminals. These tanks will hold 2,115,000 gal. each and will be filled by pumping through 6-in. wrought-iron pipe from the Harrisburg tank car unloading station. When it becomes necessary to draw on this supply, the oil will be pumped back through the same line to the storage tanks at Harrisburg. If needed at Enola, the oil will be loaded into tank cars at Harrisburg for transfer by rail.

All of the pumps for handling fuel oil at the Harrisburg terminal are housed in a 25-ft. by 65-ft. brick pumphouse located directly east of the storage tanks. Divided into a large and small room, this building contains, in the west end, all of the pumping equipment for unloading, storing, and delivering fuel oil to locomotives, and also the oil filtering equipment. The east room of the pumphouse, 12 ft. by 25 ft., contains the equipment necessary to supply Fire-Foam, through an independent pipe system, to all sections of the Diesel terminal area.

A 50-ton Diesel-electric industrial locomotive, built by American Locomotive-General Electric for the Weirton Steel Company, in the yard of the steel firm's plant at Weirton, W. Va.

FRISCO ENTERS MOBILE, ALA., THROUGH A. T. & N. CONTROL

St. Louis-San Francisco control of the Alabama, Tennessee & Northern—a Class II road long afflicted with traffic anemia—is expected to give the short line the "shot in the arm" essential for its continued existence. The A.T. & N., unencumbered by branches and recently shorn of its unprofitable passenger operations, serves the thriving port of Mobile, but has failed to share in its growth and prosperity because it does not, of itself, go anywhere. As a unit of the widespread Frisco lines, the A.T.&N. will become an integral part of a singly controlled rail link between the growing gulf seaport and the nine Southern and Southwestern states served by its new owner. The St. Louis-San Francisco applied to the Interstate Commerce Commission in October, 1948, for authority to acquire control of the A. T. & N. The commission's approval was received on December 17, and reported in the *Railway Age* of January 1, page 52.

The Alabama, Tennessee & Northern—operating wholly within the state of Alabama—runs due north out of Mobile to Reform, 214 mi., crossing the Memphis-Pensacola line of the Frisco at Aliceville, 194 mi. from Mobile. Other connecting carriers are the Gulf, Mobile & Ohio, the Southern, the Louisville & Nashville and the Meridian & Bigbee River. There are 21 agency stations, the largest north of Mobile being York—population 1,783—also served by the Southern. The largest community served exclusively by the A.T. & N. is Chatom, with a population of 823. Traffic originating on line consists chiefly of forest products, most of which move to Mobile's large paper mills in the 58 wood rack cars owned by the road. There are approximately 25 saw mills and woodworking plants located along the A.T. & N.

Frisco Biggest Connection

About half of the A.T. & N.'s traffic is received from connections, principally the Frisco. During 1947 the two roads interchanged 15,601 revenue carloads at Aliceville. Of these cars, 11,577 originated or terminated at Mobile; 8,692 in export traffic, 1,085 in import traffic, and 1,800 for domestic shippers or consignees.

The Alabama, Tennessee & Northern is an all-Diesel railroad. Of its 13 locomotives, 10 are American Locomotive Company 1,000-hp. switchers, two are Fairbanks-Morse 2,000-hp. road-switchers, and one is a General Electric-Cummins 300-hp. switcher. The main line is laid with 60 to 90 lb. rail, and much of it is in need of extensive rehabilitation.

The history of the road is one of financial woe. A predecessor company was sold under foreclosure in 1918. The present company results from a reorganization in October, 1944, through which the funded debt was reduced from $3,968,789 to $1,980,881. In 1947, operations produced a net railway operating loss of $42,387, and a net loss of $126,343. Freight interchanged at Aliceville produced a gross of $1,182,036 for the Frisco, which revenue was in jeopardy by reason of the A.T. & N.'s marginal existence.

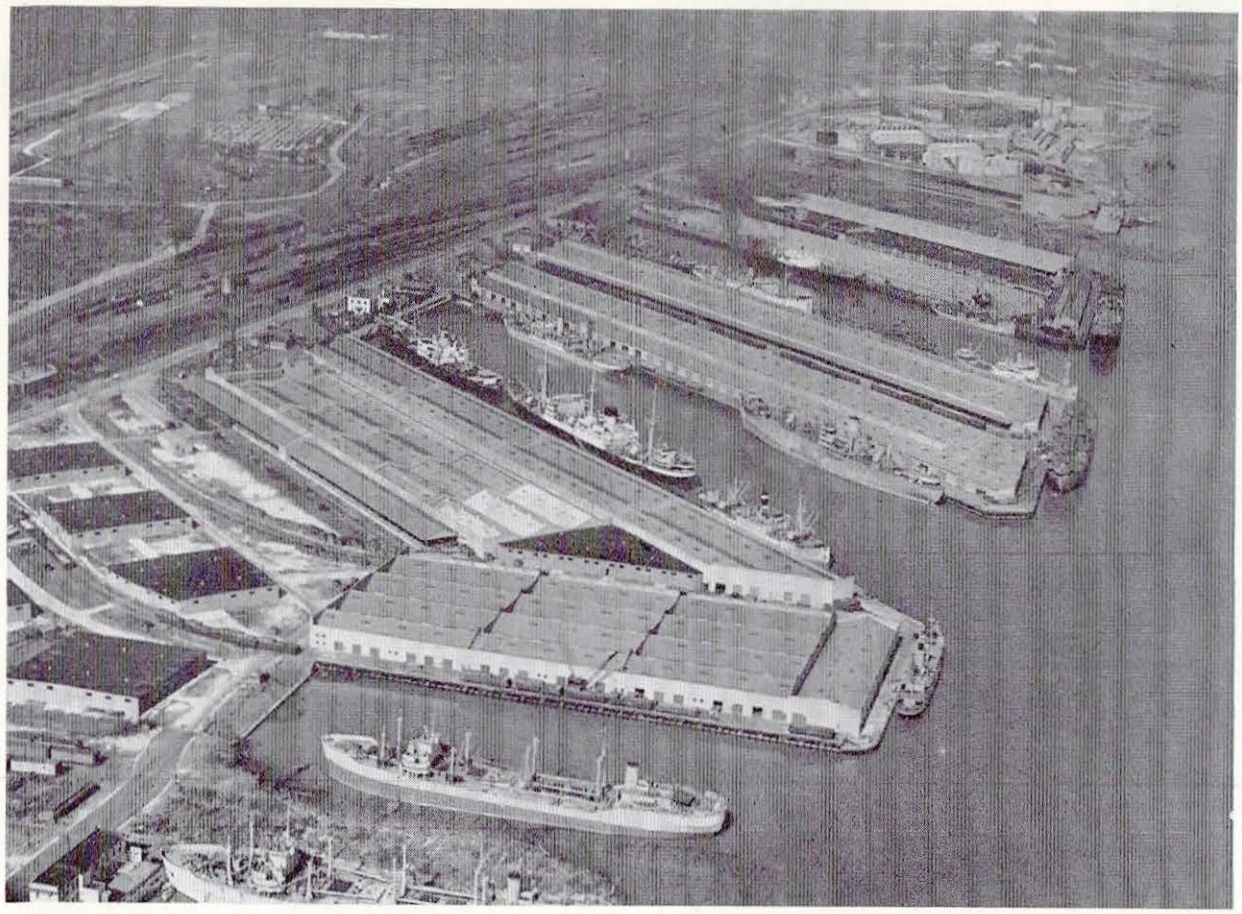
Under the plan approved by the I.C.C., the Frisco will purchase all outstanding and unpledged A.T. & N. stock and bonds for $1,161,140 ($311,525 for 12,461 shares of no-par stock, and $849,615 for bonds having a principal face amount of $1,307,100). The Frisco plans to advance funds necessary to meet the accruing liabilities of the smaller road, and to support a two-year rehabilitation program to cost $2,076,000.

Mobile a Boom Port

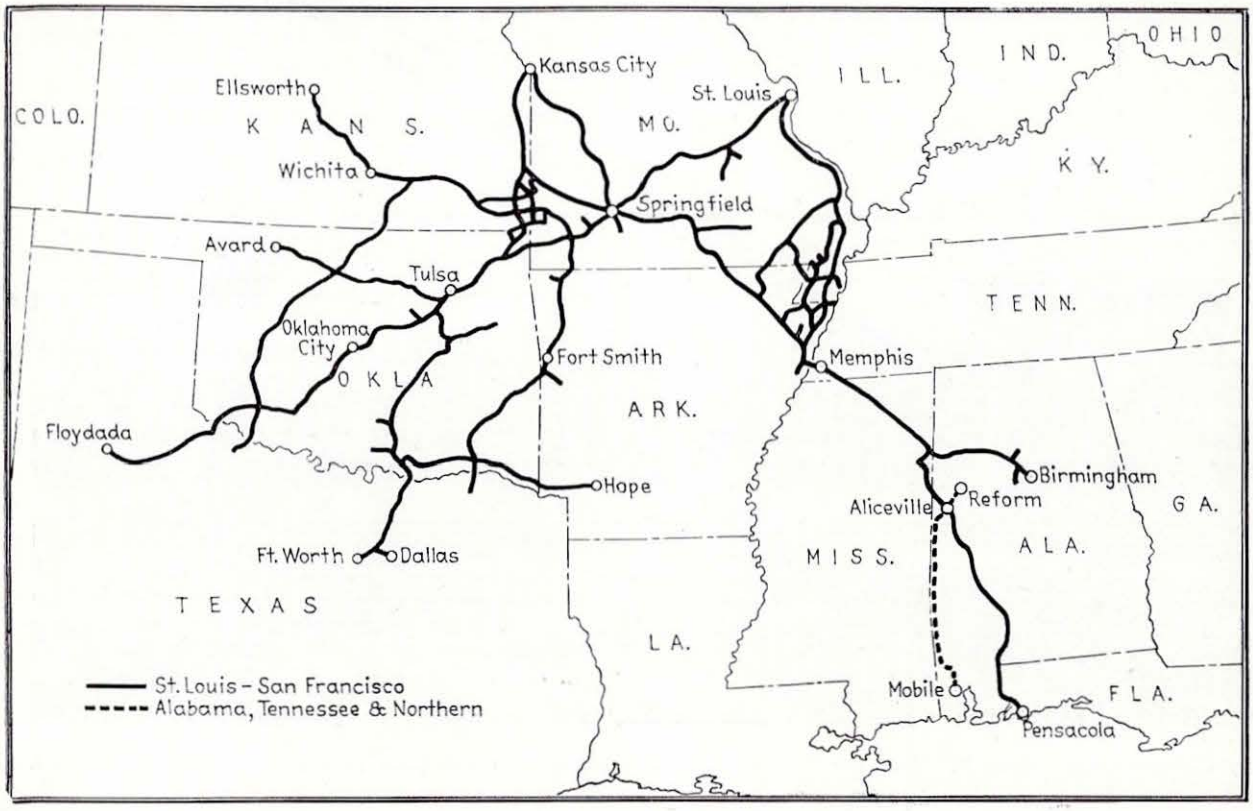
Mobile's importance as a seaport since construction of the Alabama State Docks & Terminals in 1928 has increased steadily. The impetus of wartime shipping spurred the port's traffic to new highs, but each successive postwar year has gone ahead of the war years, and more tonnage moved over the state's docks in the first ten months of 1948 than in the entire year of 1947. The following figures indicate the expansion of Mobile's waterborne traffic:

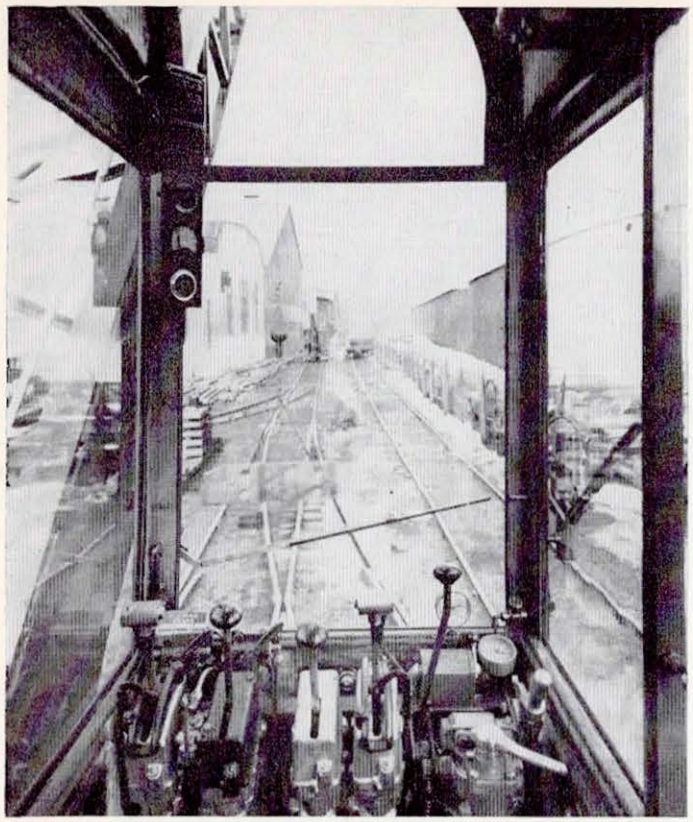
	Carloads	Tonnage
1929	26,106	953,382
1934	27,933	842,576
1939	42,422	1,742,377
1944	92,463	2,627,462
1945	95,022	2,791,066
1946	90,723	3,309,535
1947	103,006	4,053,775
1948 (10 mo.)	113,541	4,332,121

The largest items inbound by water include, in order of importance, bauxite ore, bananas, manganese ore, explosives, and fertilizer. Principal outgoing items are fuel and gas oils, bituminous coal, lumber products, cotton, grain products, and canned milk. Facilities at the port include three piers—each 1,600 ft. long—concrete shipside sheds and warehouses, a shipside bulk material-handling plant, a bonded cotton warehouse and cotton compress, and a mile-long industrial canal of 15-ft. depth, affording industrial sites with access to all railroads and ship lines. The state facilities are served by a terminal railway which gives Mobile's four trunk lines, including the A.T. & N., full access to the docks, warehouses and industrial areas. Improvements costing $4 million are currently in progress.



Acquisition of the A. T. & N. gives the Frisco direct entry to the expanding port of Mobile





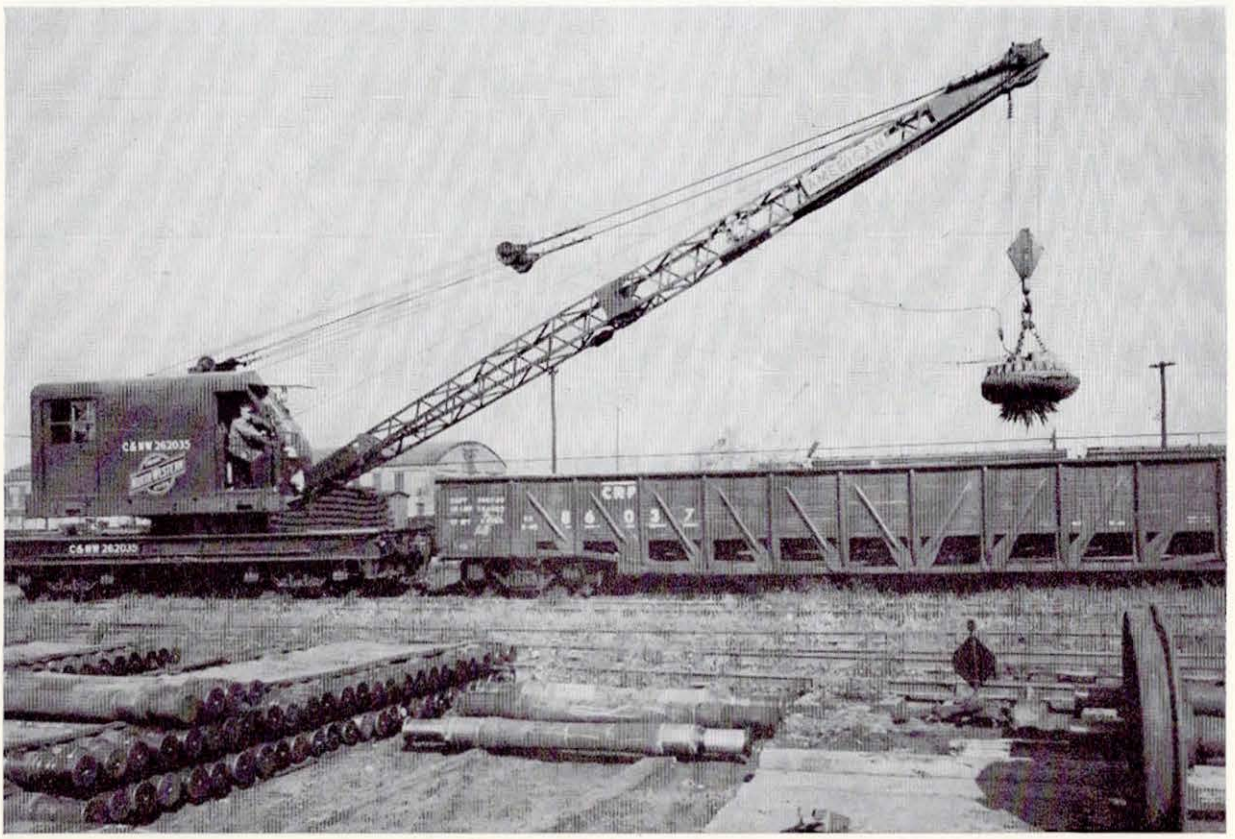
Interior of cab of 30-ton American Hoist & Derrick Diesel crane in use by C. & N. W. Controls are so placed that they are easy for the operator to reach, thus making for faster movement

DIESEL CRANE

Yearly fuel savings estimated at about $1,600 are only one of the economies which replacement of a steam crane by a 30-ton Diesel crane has brought to the Chicago & North Western's stores department. This new crane, in operation at the scrap yard of the C. & N. W. at its general storehouse on Chicago's west side, also makes possible faster car loading and has increased the output by about two cars per day.

Fuel Statistics

The steam crane used in handling scrap burned about 1½ tons of coal daily. At November average mine prices of $4.40 per ton this amounted to about $6.60 per day. The Diesel averages 12 gallons of oil per day, which, at average November refinery prices of 11.7¢ per gallon, totals $1.40. Thus, fuel savings amount to approximately $5.20 per day, exclusive of transportation charges.



Crane's magnet takes large bite from pile of scrap borings. 30-ton capacity and quick booming and slewing make possible high loading rate

SPEEDS SCRAP HANDLING

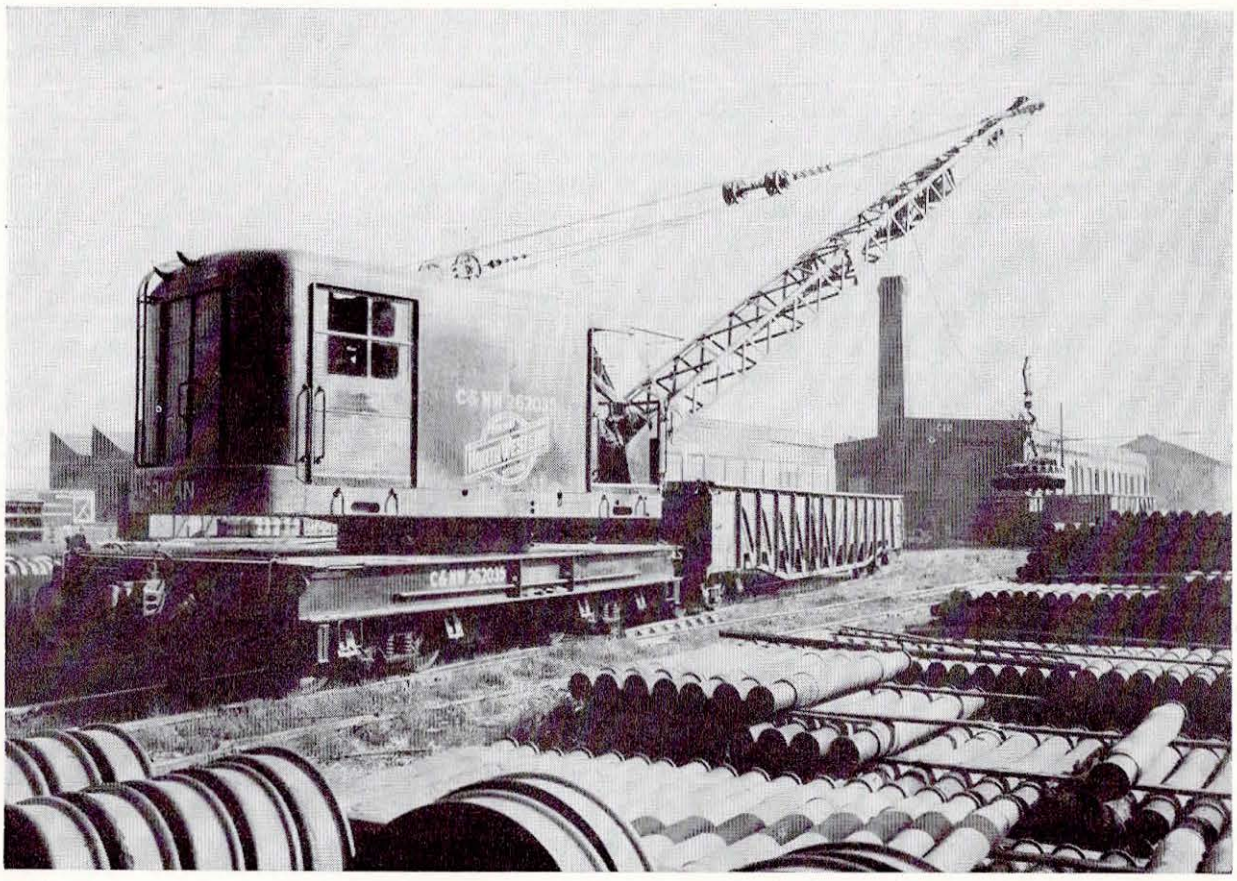
The increase in the number of cars loaded daily is due to three factors: (1) Controls readily available to the operator cut waste motion to a minimum; (2) the Diesel crane is actually faster moving than the old steam crane; and, (3) three daily halts for fueling and watering of the steam crane are eliminated entirely when the Diesel is in use, for the latter carries enough fuel in its tank to do a normal week's work.

Speedy Operation

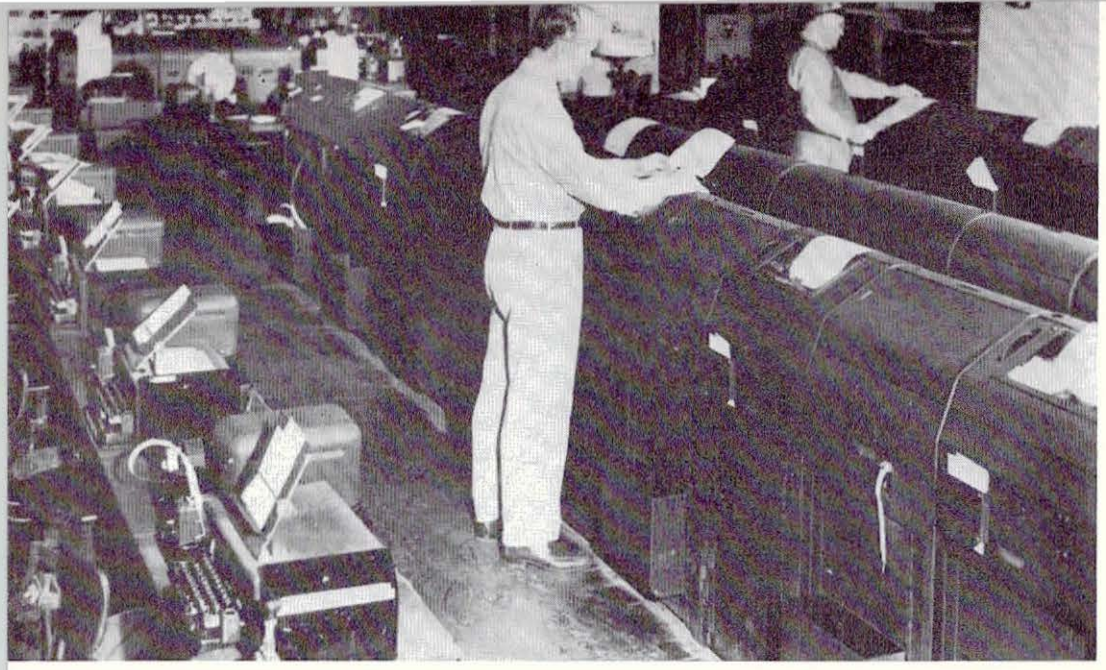
As an illustration of the speed at which the Diesel crane works, 53 tons (scale weight) of scrap were loaded in a car in a total time of 21 min. This is an average of 2.52 tons per minute. Spikes, tie plates and other #1 melting steel made up the carload, and movement from pile to pile was made, so that all the 21 min. were not consumed in the actual process of loading.

This crane was built by American Hoist & Derrick Co., St. Paul 1, Minn., and was put into service in February, 1948. Vital data are listed below:

Engine—Caterpiller Diesel 13,000 self starter on starter engine;
Brakes—Straight air;
Boom—50 ft.;
Wheels—8-6 x 11 cast steel, 1 wear;
Capacity—30 tons;
Outriggers—Sliding I-beam type, 20 in. dia., 2 sheave, 30-ton capy. blocks with roller bearing swivel hook and counter weights;
Counterweights—44,000 lb.;
Fuel tank capy.—75 gal.;
Generator for mag. 10 K.W.;
Kohler lighting plant and electric cab heater;
Magnet—55 in.;
Bucket—2 cu. yd., Kessler type;
Flood lights on cab—2-250 watt on cab, and
Cab lights—3-50 watt.



A load of scrap axles on their way into the car



In "GO" office at Baltimore, showing at the left a row of keyboard tape perforators and associated tape transmitters, and at the right, the long rows of receiving machines, in pairs — one receiving the printed page form and the other receiving the same message by perforating a tape on which the message also is printed

COMMUNICATIONS MODERNIZED ON BALTIMORE & OHIO

$2,500,000 program of printing telegraph and telephone improvements—the basis of "Sentinel Service" to shippers and consignees—is paying for itself by cutting the cost per message in half

A program of modernizing communication facilities, to an extent probably never before attempted on any railroad in such a short time, is now being brought to a conclusion on the Baltimore & Ohio. This railroad had so much modernization to be done because there had been no great urge to replace Morse telegraph until recent years, a condition for which there is an explanation in history.

It was on a line of the Baltimore & Ohio, between Washington and Baltimore, that Samuel F. B. Morse's first telegram was transmitted in 1844. Based in part on this early project, the Baltimore & Ohio constructed and operated telegraph facilities and services not only on its own railroad but also beyond its rails as far as Boston, New Orleans, Galveston and St. Louis, the operations extending over approximately 50,000 mi. of pole line. The Baltimore & Ohio Telegraph Company, which operated this service, was absorbed into the Western Union in 1887, and the Baltimore & Ohio has since that time enjoyed a rather favorable contract with respect to line circuits for railroad use.

Due perhaps in part to the features of this contract, extensive use of the telegraph was continued by this railroad. As recently as 1943, about 95 per cent of the message traffic was handled by Morse. When railroad facilities were overloaded, the excess was sent over commercial telegraph lines. All offline message traffic was handled by commercial companies. At that time the Baltimore & Ohio had telephone train dispatching on many divisions, but only limited company telephone service was available between the regional offices or between divisional offices. As a result, practically all telephone calls between offices were handled over the long-distance lines of commercial companies.

The modernization program started in 1945 had three principal objectives: (1) to provide adequate printing telegraph service to meet all requirements for message traffic, including additional services such as train consists and wheel reports which had not been available by Morse; (2) to provide adequate telephone service between all principal offices of the railroad; and (3) to provide the line circuits for the printer and telephone service by installing carrier apparatus, rather than adding new wires on the pole lines. By the end of 1948 the program originally outlined in 1945 was nearly completed.

The message traffic of the railroad as a whole can be measured by the number of messages handled through the general communication office, "GO," at Baltimore. Previously, when nearly all messages were handled by Morse, the maximum was about 8,000 messages daily through this office, whereas with the present teletype service, from 14,000 to 15,000 messages are handled daily, in addition to about 450 wheel reports, about 150 of which are relayed, and numerous other long lists and reports which were never available by Morse. In addition to handling twice the message traffic, the speed and accuracy have improved substantially, and the average cost per message is now less than half what it was. Whereas $450,000 or more was being paid annually for an inadequate number of long-distance telephone calls over toll lines,

the new railroad long-distance telephone facilities now provide practically unlimited service throughout the entire system 24 hours daily at lower overall expense. Approximately $2,500,000 has been spent in this printing telegraph and telephone improvement program. The results in improved service, as well as reductions in operating expenses, are eminently satisfactory.

The Flow of Message Traffic

The general communications office, "GO," in the general office building in Baltimore, is the center of operations of the printing telegraph system. "GO" is directly connected by printer service through 26 trunk-line circuits to regional and divisional relay offices in Cumberland, Grafton, Pittsburgh, Newark (Ohio), Wheeling, Akron, Chicago, Cincinnati and St. Louis. From these relay offices, teletype printer service extends to yard offices and other outlying points and terminals. In addition, short-haul, direct, two-way printing telegraph is in service between certain offices, as for example between Pittsburgh and New Castle, Cumberland and Grafton, Cincinnati and Dayton, Cincinnati and Indianapolis, and Chicago and Willard. A third form of service is the so-called party line, with sending-receiving page printers on the same line at several offices, such as Baltimore, Brunswick, Cumberland, Martinsburg and Cumberland, or Pittsburgh, New Castle, Youngstown and Akron. For example, four sending-receiving page printers in the "GO" office are in the party-line service. Thus, on all the divisions, these party lines provide printer service from important intermediate offices to the division offices, which, in turn, work direct with Baltimore.

Messages which originate in Baltimore are handed to an operator at one of eleven keyboard tape perforator machines, which prepares the message in perforated tape form for transmission. At the left of each of these machines is a tape transmitter which is connected through a line circuit to the receiving printer at that one of the principal offices with which the operator is working. Transmission of the message can take place concurrently with the keyboarding, if the circuit is not busy, or the tape can be held for later transmission. Also, the tape can be reused on other circuits, or filed for record.

In addition to the tape transmitters associated with the 11 keyboard perforators, there are also two multiple transmitters, each including six transmitters, these being used primarily for relaying messages or reports which are received on reperforators.

A wheel report, which is made up by a clerk in a yard office from information on the waybills, shows the number of the train and engine, the names of the engineman and conductor, and lists each car to show the initial, number, contents, weight, destination and consignee. In the past, the yard clerks prepared such a report for each train and gave one copy to the conductor for delivery at the next terminal, after which it was mailed to Baltimore. This provided no advance information at the destination yard for the preparation of switch lists, nor did it furnish information to freight and traffic agents concerning the progress being made in the movement of shipments.

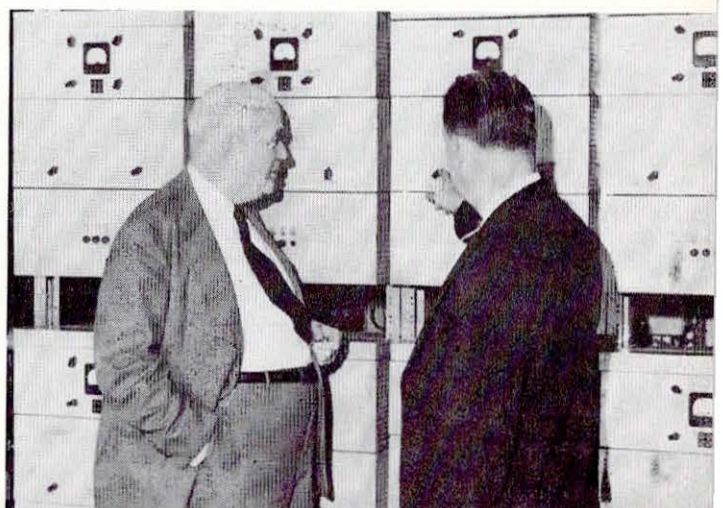
Now, with the teletype system in service, when a yard clerk types a wheel report on a direct keyboard-type teletype printer, a typed copy is made on his own machine. Simultaneously at the division communications office teletype equipment, known as a typing reperforator, prepares a tape copy, by means of which the report is automatically transmitted to the general communications office in Baltimore. In the division office, a typed copy for local use is made automatically on an office teletype page printer connected with the relay transmitter.

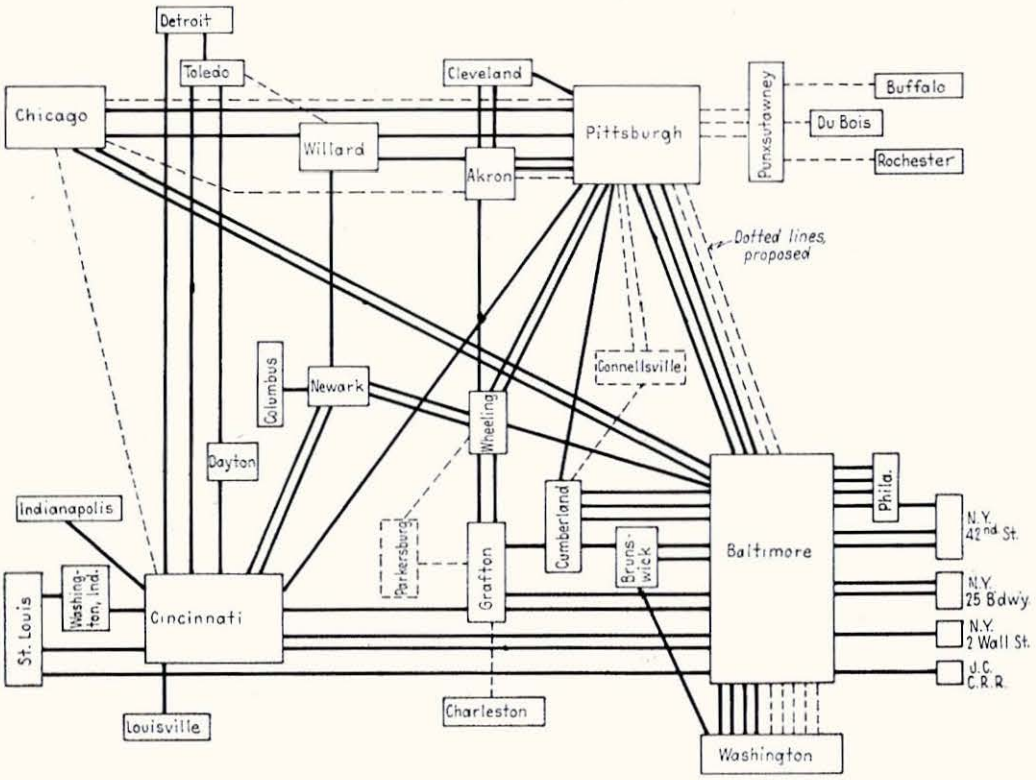
The Basis of "Sentinel Service"

In the general communications office in Baltimore, all messages and reports are received on page printers, each of which is connected in series with a reperforator that simultaneously punches a tape. If it is a wheel report the tape is used to transmit the report to the yard at which the train is to arrive, so that the yardmaster can plan the switching to be done before the train arrives. A total of 19 page printers, with reperforators in series, are located in one row in the "GO" office.

The typed copy of each wheel report as received on a teletype page printer in the general communica-

Above — Typical keyboard tape perforator and, at the left, the associated automatic tape transmitter. Below — A. S. Hunt, chief engineer, communications and signals, and L. J. Prendergast, superintendent of communications, check operation of electronic carrier equipment in "GO" office





Schematic diagram of trunk telephone circuits between private branch exchanges on the Baltimore & Ohio

tions office in Baltimore is used in a ditto duplicating machine to make as many copies as needed. An average of 1,350 sheets of these wheel reports, each listing 22 cars, are received daily at Baltimore. Three copies of each go to the office of the car superintendent. From one copy, his office force prepares and distributes, not later than 3:30 p. m. each day, a printed consolidated passing report on all car movements for the 24-hr. period ending at noon or later of that day. Copies of this report go to all division offices and traffic offices as a part of the Baltimore & Ohio "Sentinel Service" to keep shippers and consignees advised of the movement of their cars of freight.

Another important phase of this "Sentinel Service" is to advise shippers if cars are cut out of a train and delayed; therefore, so-called cut-out reports are transmitted by teletype. For example, if an eastbound car develops a hot box and is cut out of a train, thus missing a connection and incurring a delay, this information is sent through quickly to the local traffic officer. If any car is delayed so that it will not arrive on advertised "Sentinel Service" schedule, the shipper and consignee are advised promptly, and are told when it will be delivered. This feature has done much to improve customer relations, and has reduced bills for damages to perishables and live stock.

In addition to the wheel, cut-out and interchange reports, the teletype system now handles numerous others, such as reports on train accidents, personal injuries, delays to trains, coal and dock operations, coal and ore situations, and various operating department activities. These reports are all in addition to ordinary messages incident to the operation of the railroad. The copies of the passing reports and interchange reports, as received in the car superintendent's office in Baltimore, now form the basis for the bulk of the car accounting.

In addition to the new teletype service for handling messages and various reports, the program of improvements has included the installation of an extensive system of long-distance telephone communication between all important regional and divisional offices on the entire railroad. For example, from Baltimore two circuits extend to Chicago, three to Pittsburgh, two to Cincinnati, one to St. Louis, eight to Washington, three to Philadelphia, and six to Jersey City and New York. Other telephone circuits connect these and intermediate places with outlying yards, docks, shops and offices. As a result, telephone service is available for calls between practically any two locations of importance on the entire Baltimore & Ohio system. Furthermore, sufficient trunk-line circuits are available to handle calls promptly.

The new printing telegraph and long-distance telephone services necessitated a number of additional circuits between offices, principally between Baltimore and the nine relay offices. By using modern electronic equipment made by the Western Electric Company and the Federal Telephone & Radio Corp. additional circuits were superimposed on existing line wires. Altogether approximately 9,000 circuit miles of teletype circuits and 17,000 circuit miles of telephone service were thus derived without installing additional line wire.

This extensive program of improvements in communication facilities was planned and installed by railroad forces under the jurisdiction of A. S. Hunt, chief engineer, communications and signals, and L. J. Prendergast, superintendent communications.

GENERAL NEWS

File Pact on Car Hire, Demurrage, Storage Rules

Railroads in A.A.R. set-up seek I.C.C.'s O.K. under Bulwinkle Act

Railroad parties to car-hire, demurrage and storage rules, which are administered through the Association of American Railroads, have filed with the Interstate Commerce Commission an application for approval of a procedural agreement covering that set-up. The application was filed under the Interstate Commerce Act's section 5a, which was added last year by the Bulwinkle-Reed Act, and the commission has docketed it as Section 5a Application No. 7.

At the time of filing, 337 railroads had joined in the application, but an A.A.R. announcement said that others would be added as soon as they complete execution of the agreement. The filing was by A.A.R. President W. T. aricy as attorney-in-fact for all the applicants, and by John B. Hyde, vice-president of the Southern, on behalf of that road and "all other applicants."

The proposed agreement sets up "the organizations and procedures for the joint consideration, initiation or establishment, and adjustment from time to time, of (a) the per diem rate of compensation payable for the use of foreign line freight cars; (b) the mileage rates of compensation payable to owners of freight cars for the use thereof; (c) demurrage and storage charges payable by shippers for the use of railroad freight cars and facilities; and (d) rules and regulations pertaining to such rates or charges." While the application pointed out that the proposed procedure was designed to operate "within the framework" of the A.A.R., it also said that the only organization to which the agreement relates, "if it be properly denominated as an organization," consists of the railroad subscribers, the A.A.R. board of directors, and the General Committee of the A.A.R.'s Operating-Transportation Division.

The agreement contemplates that this General Committee, upon its own initiative, or at the direction of the A.A.R. board, or at the instance of subscribers owning not less than 20 per cent of the revenue freight cars covered by the agreement, shall "consider the desirability of change of current rates of per diem, mileage, or demurrage and storage charges, or of any rule or regulation pertaining thereto, and make such recommendations as it shall deem proper" to the A.A.R. board. The agreement further contemplates that the board shall consider any such recommendation and "in accordance with its judgment as determined by a majority vote of its members, determine what if any proposal for change . . . shall be submitted to letter ballot vote of the subscribers."

In all cases of submission to subscriber vote of any proposed change, the affirmative vote of subscribers owning a majority of the revenue freight cars covered by the agreement shall constitute approval of the proposal. There is also a provision requiring the A.A.R. board to submit a proposed change in rates or charges to letter-ballot vote if it is requested, in writing, to do so by subscribers owning not less than 20 per cent of the cars covered.

With respect to a proposed change in the per-diem rate or rules, the agreement provides for participation in the deliberations of the General Committee by a representative of the American Short Line Railroad Association. There are other provisions assuring notice to private car owners, and consideration of data submitted by them, when a change in mileage rates is under consideration; and a public hearing with respect to proposed changes in demurrage and storage charges. Meanwhile, the right of each railroad subscriber to act independently is reserved, and it is stipulated that nothing in the agreement "shall be construed to prevent or limit recourse to the Interstate Commerce Commission by any subscriber for any relief (in pending proceedings or otherwise) accorded by law in respect of any of the matters covered."

Arguing for favorable commission action, the application said it is a "self-evident fact" that the national transportation policy "requires free and unrestricted interchange of freight cars as between the carriers which collectively constitute the national system of rail transportation." It was also asserted that the situation requires "suitable arrangements" to compensate car owners for the use of their cars; and that shippers must load and unload cars "with due expedition" and be required to compensate railroads for detention of cars beyond a reasonable period of free time.

"These aspects of railroad operation," the application continued, "require uniform treatment if adequate, economical and efficient service is to be rendered on a national scale, and if sound economic conditions in transportation and among the several carriers are to be fostered, as called for by the declaration of policy in the act. Heterogeneous handling on a sectional, local, or single line basis would not be calculated to prevent or discourage unjust discriminations, undue preferences or advantages, and unfair or destructive competitive practices . . .

"Appropriate handling on a nationwide basis is to be achieved only through cooperative joint action by the carriers themselves, as one alternative, or governmental edict, as the other . . . It is notable that Congress has nowhere in the Interstate Commerce Act imposed upon the commission a mandate to exercise the initiative in respect of per diem, mileage, or demurrage and storage rates and charges, or rules and regulations pertaining thereto. On the contrary, the act leaves the initiative with the carriers themselves and vests in the commission wholly supervisory and discretionary powers."

The commission's notice announcing receipt of the application said that any person desiring a hearing should request it in writing within 20 days from the notice's date (January 11). "Otherwise," the notice added, "the commission, in its discretion, may proceed to investigate and determine the matters involved in such application without further or formal hearing."

Right of RRs to Adjust Rates Asked by Metzman

Addresses 25th anniversary meeting of Mid-West Shippers Board

A plea that the railroads be freed from the restraint of being permitted to raise rates only after time-consuming hearings and deliberations was made by Gustav Metzman, president of the New York Central, at Chicago on January 6. He told some 1,000 shippers and railroad men attending a luncheon meeting that "serious consideration should be given to the desirability of permitting the railroads to adjust their prices to conform with their costs when they find the need is obvious." Speaking before the Mid-West Shippers Advisory Board's "silver jubilee anniversary" meeting, Mr. Metzman further observed that "the traditional elaborate hearings, and the subsequent deliberations and final decisions on the precise nature and degree of the adjustments, could be the second process instead of the first—and without serious damage to anyone."

At an earlier session of the board, J. W. Hoover, general traffic manager, Carnegie-Illinois Steel Corporation, Pittsburgh, Pa., spoke on "An Appreciation of Shippers Regional Advisory Boards." National transportation conditions were discussed briefly by A. H. Gass, chairman, Car Service Division, Association of American Railroads.

At one point in his address, Mr. Metzman called attention to subsidized competitors of the railroads, declaring that they are one of the principal reasons why the roads as a whole have not participated in America's general prosperity. On this subject, he said: ". . .while all forms of transportation have their spheres of usefulness, those which require and receive constant blood transfusions from the public purse are inordinately expensive in the long run. They increase your tax bills. To the extent that they divert traffic which the railroads can haul more efficiently, they also increase your railroad freight bills. While these subsidized competitors may 'save' you a little money from one pocket, it is quite likely that, in taxes and in railroad freight bills, they are costing you more money from your other pocket than you 'save' from the first pocket. Nobody really gets anything worthwhile for nothing, and the cheapest transportation, in the long run, is the kind that can stand and does stand on its own feet."

Expanding on his contention that the carriers themselves be allowed to adjust their rates to meet rising costs, the N. Y. C. president said that such a system would give the railroads the "business flexibility which the great majority of industries rightly enjoy, without decreasing in any degree our recognized responsibilities as public carriers." Directing his remarks to shippers, he declared: "This might, of course, cost your businesses slightly more money in the short run. But it actually would save you money—and probably considerable money—in the long run. An inadequate rate level means inadequate earnings. Inadequate earnings mean inadequate modernization. Inadequate modernization can mean only a high cost of performing transportation, and an inferior quality of service as well. I know that you want neither of these. The only true hope for relatively lower rates is in a dynamic, progressive railroad industry."

Modernization Reduces Reserves

The speaker pointed out that the extensive modernizations undertaken by the railroads since the war have been made possible only by the substantial financial reserves built up during the war years—after 10 years of depression earnings and expenditures. These reserves, he added, declined by $1.2 billion from the end of the war through September, 1948.

"This serious working capital decline of well above $1,000,000 a day, over a three-year period, is indisputable proof that the railroads' rate of return must be made much greater to permit continuance of their much-needed modernization programs," said Mr. Metzman. "These programs, generally speaking, have only been well started. They must be continued, for they are essential to efficient transportation, to truly low-cost transportation. And they are essential to the nation, whether in peace or in war. The iron horse must be kept healthy and well nourished to continue doing the job you expect it to do."

Discussing the railroads' need for adequate earnings to continue improvements and to fully serve shipper needs, the speaker drew the following comparison: "In the 1925-1929 period, Class I railroads had a return on net worth of 6.2 per cent, while manufacturing corporations were enjoying a return of 10.7 per cent. But in the first half of 1948—and despite a much larger volume of business—the railroads had a return on net worth of 3.9 per cent, whereas manufacturing corporations were enjoying an average return of 19.1 per cent. In other words, while the return of the manufacturing corporations was jumping from 10.7 per cent to 19.1 per cent, the return of the railroads was slumping from 6.2 per cent to only 3.9 per cent."

"Today's Investments, Tomorrow's Rates"

Mr. Metzman observed that "the railroad investments of today, and the savings they make possible, determine the rates of tomorrow." In this connection, he further stated: "Industry's own long-range interest would best be served if there were a definite abatement of the automatic cries of protest which too often arise from some segments of industry and government when the railroads find it necessary to adjust their prices to meet their costs.

"The automatic 'no' can be a pernicious habit. For despite the necessary increases in freight rates, their total climb since 1939 has been only one-third as much as the increases in prices generally. As a result, payments for railroad transportation are lower in relation to the values of the commodities transported than at any time since such figures first were compiled.

"Progress is possible only through improvement, and for improvement, adequate earnings are essential. I have faith that self-enlightened industry will, more and more, see and act on the necessity of keeping the railroads strong and useful—in industry's own self-interest, and in the interest of a greater and more secure America."

Shippers Air Their Views

Mr. Hoover, who spoke at the January 6 business session, expressed appreciation for the shipper advisory board "system" whereby buyers and sellers of transportation sit down and discuss their problems. He applauded the carriers for seeking the advice of shippers before purchasing certain equipment, thereby giving shippers a voice in the design of equipment to fit their needs. He commended the shippers boards for backing private enterprise with words and deeds, for opposing legislation unfavorable for the railroads and for supporting that which is good for the carriers.

The board passed a resolution asking for the end of O.D.T. orders No. 1 and 18A (minimum loading rules) as of February 28. Arthur T. Coburn, general traffic manager, Penick & Ford Ltd., Inc., Cedar Rapids, Iowa, who proposed the resolution, said that the shippers are "sick of the heavy loading orders." He pointed out that many people cannot buy 70,000 to 80,000 lb. of freight and that the railroads are losing shipments to trucks because of the order. Shippers will continue to load heavy, he stated, but want the right to ship minimum loads.

C. R. Purcell, manager of the traffic department, Quaker Oats Company, Chicago, and chairman of the loss and damage committee, reported that special efforts will be made during the coming year to reduce the $34 to $35 million loss and damage attributed to merchandise.

An increase of 33 per cent in grain car loadings during the first quarter of 1949 compared with 1948 was forecast by L. Farlow, secretary, Farmers Grain Dealers Association, Bloomington, Ill., who was also cited for his record of forecasting 99 per cent correct during

RAILROAD FAIR OF 1949 OPENS AT CHICAGO JUNE 25 FOR 100 DAYS

The 1949 Railroad Fair will open at Chicago on June 25 and run through October 2 — a total of 100 days, Major Lenox R. Lohr, president, announced last week. Major Lohr, in planning this year's Fair, has placed emphasis on a "better" rather than a "bigger" Fair, pointing out that the existing 50-acre area will be improved in every way possible to enhance the comfort and entertainment of visitors.

As noted in the *Railway Age* of October 23, 1948, page 55, the 5,000-seat grandstand will be enlarged in view of the fact that thousands of persons had to be turned away from the 1948 "Wheels-A-Rolling" pageant. Other improvements will include erection of covered ways connecting the various exhibits to protect visitors from sun and sudden showers; black-topping of all roadways for more comfortable walking; installation of adequate rest-room facilities; and opening of at least four additional dining cars. Changes and additions to existing exhibits will be made and plans are being developed for outstanding new presentations.

The "Deadwood Central" narrow-gage railroad will be expanded to accommodate greater crowds. A second train is to be added to the system and a passing track installed to permit both trains to use the same track.

The 1948 Railroad Fair attracted more than 2,500,000 customers during its 76-day run.

the past 25 years. J. J. Mahoney, general superintendent of transportation, Atchison, Topeka & Santa Fe, and chairman of the railroad contact committee, said that he hoped the grain forecast was correct because "we need the business." He reported also that more cars are now on home lines in western territory than at any time since the beginning of the war. He asked that, during the lull in car loadings, shippers cooperate in loading cars to owners' rails.

Clayton F. Devine, traffic director, Silica Sand Traffic Association of Illinois, and general chairman of the board, stated that the luncheon session attracted the largest gathering of members and guests in the board's history. As proof of interest in the board's meetings, he pointed out that 2,750 persons attended its four meetings in 1948. As of October 1, 1948, membership totaled 1,701.

George M. Cummins, traffic commissioner, Davenport, (Iowa), Chamber of Commerce, was elected general chairman of the board succeeding Mr. Devine. Other officers elected were: Alternate general chairman, T. C. Burwell, Decatur, Ill., vice-president of the A. E. Staley Manufacturing Company, and general secretary, John T. Moore, Chicago, assistant traffic manager of the International Harvester Company.

New Congress Gets Many Transport Bills

Include Bulwinkle Act repealer, plan to legalize freight absorption

The 81st Congress convened for its initial session on January 3, and the first few meeting days brought to the Senate and House of Representatives the usual flood of bills which comes to a new Congress. Among such bills are proposals to repeal the Reed-Bulwinkle Act which was enacted last year to provide immunity from the anti-trust laws for carriers participating in rate-procedures agreements approved by the Interstate Commerce Commission; and to make it lawful for sellers, in the absence of conspiracy, to absorb freight charges to reach competitive markets.

Many of the new bills are old measures being reintroduced, for all legislation pending before the 80th Congress at various stages short of final enactment died with the *sine die* adjournment of December 31, 1948. Among such repeaters are resolutions to approve the proposed St. Lawrence seaway agreement with Canada; bills to extend the I.C.C.'s regulatory authority to railroad operating rules, and to roadway and communication facilities; and bills to repeal the taxes on amounts paid for the transportation of persons and property.

The proposal to repeal the Bulwinkle-Reed Act was introduced by Representative O'Hara, Republican of Minnesota. It is H.R. 104. The bills to legalize freight absorption, and thus eliminate the confusion which has resulted from the Supreme Court's April 26 decision upholding the Federal Trade Commission's "cease and desist" order against the cement industry's basing-point system of pricing, were introduced by Senator Johnson, Democrat of Colorado, and Representative Philbin, Democrat of Massachusetts. They are S. 236 and H.R. 1001, respectively.

Senator Johnson, who is the new chairman of the Senate Committee on Interstate and Foreign Commerce and of its Subcommittee on Trade Policies, announced on January 11 that the latter (formerly headed by Senator Capehart, Republican of Indiana) would hold hearings on S.236, beginning January 24. In a statement which he made to the Senate when he introduced the bill on January 5, Senator Johnson said in part:

"During the past eight months business men engaged in interstate commerce have been greatly disturbed by the confused status of the law as to the payment, or absorption, of transportation charges. Last spring this body directed a subcommittee of which I am now chairman to study that problem. The testimony before that subcommittee shows that not only are business men confused, but that the members of the Federal Trade Commission and its staff are in complete disagreement as to when a seller may pay or absorb transportation costs . . .

"It is now time for the subcommittee to turn from its general study to specific efforts to clarify the present chaos resulting from the Supreme Court interpretation of the law. This is not an administrative problem, it is not a political problem, and it is not a judicial problem. It is an economic problem which, in the best interests of our national economy, Congress must decide. Whether we shall permit sellers acting in good faith to pay or absorb transportation costs to promote competition is a legislative problem. . . . This bill is an attempt to eliminate confusion. I do not pretend that it is in perfected form, and constructive criticism is invited."

Other bills of particular interest to the railroads, together with their sponsors, are listed below. The Congress has also received still other bills of more or less interest to the carriers, such as those proposing to repeal the Labor-Management Relations (Taft-Hartley) Act, to increase the statutory minimum wage, and to prohibit discrimination in employment.

Introduced in House of Representatives

H.R.22, to amend the Interstate Commerce Act so as to prohibit the segregation of passengers on account of race or color (Powell of New York).

H.R.105, to amend the act of March 19, 1918, so as to provide that standard time shall be the measure of time for all purposes (O'Hara of Minnesota).

H.R.141, to provide for federal participation in the financing of certain aeronautical developments (Beckworth of Texas).

H.R.194, to provide for the establishment and operation of an experiment station in the Hocking Valley coal region in the State of Ohio for research on the production, refining, transportation, and use of petroleum and natural gas from coal and oil shale (Jenkins of Ohio).

H.R.205, to repeal the tax on transportation of property (McDonough of California).

H.R.208, to repeal the tax on transportation of persons (McDonough of California).

H.R.306, to establish a Department of Transportation (Stefan of Nebraska).

H.R.328, to amend the Inland Waterways Corporation Act (Boggs of Louisiana).

H.R.378, to amend section 25 of the Interstate Commerce Act to require certain common carriers by railroad to install and maintain communication systems and to establish and observe operating rules, regulations, and practices to promote safety of employees and travelers on railroads (Crosser of Ohio).

H.R.393, to repeal the tax on transportation of persons (Delegate Farrington of Hawaii).

H.R.427, to establish a Columbia Valley Authority (Jackson of Washington).

H.R.429, to increase the capital stock of the Inland Waterways Corporation and to extend the service of such corporation to the Tennessee and Cumberland rivers (Jones of Alabama).

H.R.448, to promote interstate and foreign commerce and strengthen the national defense by providing for cargo aircraft acceptable for both commercial and military service (Kennedy of Massachusetts).

H.R.530, to promote the safety of employees and travelers upon railroads, and to protect the public by requiring certain common carriers by railroad to install and maintain communication systems (Price of Illinois).

H.R.556, to amend the Railroad Retirement Act of 1937 with respect to the eligibility for benefits of certain employees on furlough on the date of enactment of such act (Shafer of Michigan).

H.R.804, to amend the Interstate Commerce Act and Civil Aeronautics Act to penalize black marketing of transportation tickets (Hinshaw of California).

H.R.810, relating to the use for federal tax purposes of the last-in, first-out inventory method (Philbin of Massachusetts).

H.R.811, to amend the Interstate Commerce Act and Civil Aeronautics Act to penalize black marketing of transportation tickets (Rogers of Florida).

H.R.815, to amend the Railroad Retirement Act of 1937 to provide for a 20 per cent increase in the survivor annuities payable under such act (Wolverton of New Jersey).

H.R.826, to amend the Railroad Retirement Act of 1937 to provide that individuals who have completed at least 35 years of service may retire on a full annuity without regard to age (Buchanan of Pennsylvania).

H.R.831, to amend the Interstate Commerce Act so as to prohibit the segregation of passengers on account of race or color (Dollinger of New York).

H.R.833, to promote the safety of employees and travelers upon common carriers engaged in interstate commerce by railroad by requiring such carriers to maintain tracks, bridges, roadbed, and permanent structures for the support of way, trackage, and traffic in safe and suitable condition (Ellsworth of Oregon).

H.R.838, to amend the Interstate Commerce Act with respect to the jurisdiction of the Interstate Commerce Commission over certain foreign commerce (Hale of Maine).

H.R.895, to appropriate funds for the construction of the Tennessee-Tombigbee inland waterway (Rankin of Mississippi).

H.R.1195, to amend Part I of the Interstate Commerce Act with respect to establishment of uniform per-mile rates for the transportation, by railroad or by railroad and water, of grain and grain products (Lemke of North Dakota).

H.R.1228, to repeal the tax on transportation of persons and the tax on transportation of property (King of California).

H.J.Res.22, to establish a joint Congressional committee on aviation policy (Hinshaw of California).

H.J.Res.24, to create a temporary labor relations commission to make a study and recommendations concerning labor relations (Kelley of Pennsylvania).

H.J.Res.53, approving the agreement between the United States and Canada relating to the Great Lakes-St. Lawrence Basin with the exception of certain provisions thereof; expressing the sense of the Congress with respect to the negotiation of certain treaties; providing for making the St. Lawrence seaway self-liquidating (Kilburn of New York).

H.J.Res.61, approving the St. Lawrence

agreement and otherwise also the same as H.J.Res.53 (Dondero of Michigan).

H.Res.44, to prescribe tolls to be levied for the use of the Panama Canal (Bland of Virginia).

H.Res.46, to authorize the Committee on Interstate and Foreign Commerce to investigate and study existing federal safety regulations for chartered passenger flights (McGuire of Connecticut).

Introduced in the Senate

S.1, to create an independent Civil Aeronautics Authority and an independent Air Safety Board, to promote the development and safety and to provide for the regulation of civil aeronautics, and to provide world leadership by the United States in aviation (McCarran of Nevada).

S.64, to establish a Savannah Valley Authority (Maybank of South Carolina and Russell of Georgia).

S.126, to supplement the national transportation policy and to aid in achieving that policy (Hill of Alabama).

S.211, to amend the Inland Waterways Corporation Act (Wherry and Butler of Nebraska, Gurney of South Dakota, Eastland and Stennis of Mississippi, Ellender and Long of Louisiana, Fulbright and McClellan of Arkansas, Kefauver of Tennessee, Hickenlooper of Iowa, Hill and Sparkman of Alabama, Thye and Humphrey of Minnesota).

S.237, to promote interstate and foreign commerce and strengthen the national defense by providing for cargo aircraft adaptable for postal, commercial and military service (Johnson of Colorado).

S.238, to amend section 25 of the Interstate Commerce Act to require certain common carriers by railroad to install and maintain communication systems and to establish and observe operating rules, regulations, and practices to promote safety of employees and travelers on railroads (Johnson of Colorado).

S.255, to amend section 205 of the Interstate Commerce Act, relating to joint boards (Reed of Kansas).

S.256, to amend the Interstate Commerce Act (Reed of Kansas).

S.257, to amend the Interstate Commerce Act so as to provide limitations on the time within which actions may be brought for the recovery of undercharges and overcharges by or against common carriers by motor vehicles, common carriers by water, and freight forwarders (Reed of Kansas).

S.284, to amend the Interstate Commerce Act, Part III (Holland of Florida).

Truman Program Put Before New Congress

President calls for economic controls; St. Lawrence seaway

Legislation to authorize priorities and allocations for "key materials in short supply" and other economic controls was recommended last week by President Truman in his state-of-the-union message, which also called for continuance of priorities and allocation authority in the field of transportation and suggested that "means should be provided for settling or preventing strikes in vital industries which affect the public interest." Other recommendations of the message, which went to the new Congress on January 5, called for approval of the St. Lawrence seaway agreement with Canada, repeal of the Labor-Management Relations (Taft-Hartley) Act of 1947, an increase in the statutory minimum wage to "at least 75 cents an hour," new tax legislation to yield $4 billion a year, "principally from additional corporate taxes," and action to "push forward with the development of our rivers for power, irrigation, navigation, and flood control."

This state-of-the-union message was followed on January 7 by the President's annual economic report which, as Mr. Truman put it, discussed in detail the "economic background" of the foregoing recommendations. The economic report, required of the President by the Employment Act of 1946, included a report by the President's Council of Economic Advisers which said that total capital requirements of the railroads now amount to "about 1.3 to 1.4 billion dollars (1947 prices) annually, representing a rate about one-sixth higher than in 1948." The report added, however, that "actual outlays will, of course, depend largely on earnings, rates, construction and equipment costs, and the availability of external financing."

Priorities, Allocation, Production

The economic controls sought by the President are generally those which he failed to obtain from the previous Congress, controlled by the Republicans. In addition to priorities and allocation authority over "key materials in short supply," they would include "standby authority to impose price ceilings for scarce commodities which basically affect essential industrial production or the cost of living, and to limit unjustified wage increases which would force a break in an established price ceiling."

In another move to deal with material shortages, the President suggested that Congress study the need for government construction of production facilities. As set out in the message, this proposal recommended the enactment of legislation "to authorize an immediate study of the adequacy of production facilities for materials in critically short supply, such as steel; and, if found necessary, to authorize government loans for the expansion of production facilities to relieve such shortages, and furthermore to authorize the construction of such facilities directly if action by private industry fails to meet our need."

In his economic report, the President included a brief argument in support of his call for allocation powers. He reminded Congress that his similar report of a year ago had "stressed the need for the supplementation of voluntary action with mandatory controls." He then added: "The need for mandatory controls still exists. . . .There is grave danger that the problems of acute shortages cannot be adequately met by voluntary agreements." Meanwhile, the President recommended "temporary extension" of the present law under which materials in short supply are allocated pursuant to voluntary agreements such as that providing steel for the freight-car production and repair program.

Labor Legislation

The President's suggestion that means be provided for preventing strikes in "vital industries" was in that part of the state-of-the-union message which recommended repeal of the Taft-Hartley act. Mr. Truman there followed through to recommend that the Wagner Act be "reenacted," but went on to call for "certain improvements," including the above. "Jurisdictional strikes and unjustifiable secondary boycotts should be prohibited," the message lso said. "The use of economic force to decide issues arising out of the interpretation of exisiting contracts should be prevented." The President recalled that he had made these same recommendations to Congress "two years ago," after the nationwide railroad strike of May, 1946.

The recommendation that Congress continue the President's priorities and allocation authority in the field of transportation did not suggest a new expiration date for these powers which have been delegated to the director of the Office of Defense Transportation—Colonel J. Monroe Johnson. The present expiration date is June 30.

The references to the St. Lawrence seaway were brief in both the state-of-the-union message and in the economic report, but the latter said a start on the project "should be made immediately." The state-of-the-union message listed expenditures on highways among the "tremendous public investments" which, the President said, "have paid for themselves many times over." This message also called for enactment of the President's "civil rights" program which contemplates legislation to prohibit discriminations because of race, religion, color, national origin, or ancestry.

Railroads and Highways

The finding that railroad capital requirements amount to about $1.3 to $1.4 billion a year, on the basis of 1947 prices, was contained in that section of the report of the President's Council of Economic Advisers which dealt with "investment objectives." The discussion of "railroad investment" got under way with a prediction that "further freight traffic" will be lost by the railroads to other carriers. It then proceeded to put the annual capital requirements for freight cars at about $500 million; passenger cars, $80 million; locomotives, $450 million; and roadway, $300 million.

As to highways, the council found that "provision for the flow of traffic implied in our production goals" calls for an increase in highway expenditures "as labor and materials are released from other uses"; and "it also implies a balanced and economical use of both railroads and highways." As it led up to these findings, the report indicated the council's view that the annual expenditure on highways should be "at least" $4 billion.

"About one-third of this," it said, "should be assigned to city streets and expressways, one-third to primary rural roads, and one-third to secondary and local roads. Expenditures in 1949, including maintenance and repair, are not expected to equal even half our annual

long-run needs. Present activities in relation to need are much lower than they were either in the 1920's or in the 1930's and far less than what is needed for the future."

Generally, the President's economic report looked back upon 1948 as a year of "bountiful prosperity," but looked ahead to 1949 as a "period of harder tests." Maximum employment this year, it said, "means that nearly one million additional job opportunities should be provided for the growing labor force." Meanwhile, the state-of-the-union message had asserted that the government "must work with industry, labor and the farmers in keeping our economy running at full speed."

"So far as business is concerned," the message also said, "it should plan for steady, vigorous expansion—seeking ways to increase its output, lower its prices, and avoid the vices of monopoly and restriction. So long as business does this, it will be contributing to continued prosperity, and it will have the help and encouragement of the government. The Employment Act of 1946 pledges the government to use all its resources to promote maximum employment, production, and purchasing power. This means that the government is firmly committed to protect business and the people against the dangers of recession and against the evils of inflation."

House Group Reports On Transport Inquiry

Need seen for continuing study; cooperation of T. A. A. noted

Continuance of the "national transportation inquiry" which the House Committee on Interstate and Foreign Commerce launched in 1946 was called a "necessity" in a "progress report" made by the committee as it was constituted in the previous Congress. The report was submitted by the committee's former chairman, Representative Wolverton, Republican of New Jersey, on December 31, 1948, when that Congress, the 80th, returned to Washington for the one-day session which ended in its sine die adjournment.

Generally, the report reviewed the work done thus far on the investigation, giving special emphasis to the undertaking of the Transportation Association of America "to cooperate on a scale beyond anything that has heretofore occurred in this country with a view of solving our transportation problem." Later on in its discussion of this cooperative arrangement the committee went further and suggested that "probably never before has a national economic problem been approached for solution on such an elaborate basis." The "machinery" created by T.A.A. "for a complete reappraisal of transportation and the national policies and regulation with respect thereto" was described in part as follows:

"A steering committee composed of leading shipper, carrier, and investor representatives was formed to gather the issues, separate the 'wheat from the chaff,' instruct the association's legal and research divisions as to the studies required for each issue, and then submit the subjects, with research analysis, to various panels located in different sections of the country. Panels organized up to December 1, 1948, included groups representing users of transportation, investors in transportation enterprises, and the following transportation agencies: Pipe line, railroad, and waterway. Other panels are in process of formation, including highway, air line, and other interests to which leaders of labor engaged in transportation are expected to contribute. . . .

"After the various panels have studied and debated the issues and reached tentative conclusions, the results will be reviewed by 21 regional forums which are being developed in areas of common economic interest throughout the country. The personnel of the regional forums will be experienced leaders of agriculture, industry, finance, labor, and transportation, and range in number from 30 to 75. Each forum will test opinions of all localities in their areas as well as farm, trade, and civic groups. A real 'grass roots' appraisal of the individual problems entering into the national transportation policy is, therefore, obtainable.

"As a result of consideration of panel proposals, each forum submits its conclusions to the association . . . If conflict arises between any forum and the national panels, or between forums, the association will establish the machinery for further efforts to reconcile differences. If complete reconciliation is not reached, procedures provide for successive steps by which the majority and minority views . . . will reach the association's board of directors and will be included in the board's final report. It is hoped that this final report will be made to the Congress . . . early in 1950. The purpose is to submit a constructive proposal to improve our system of regulation where found necessary irrespective of what the law or practice may be at present and regardless of conjectures as to what the Congress will or will not accept."

Problem "Essentially One of Competition"

Meanwhile, the report indicated that the committee, at this stage of its studies, identifies the transportation problem as "essentially one of competition." Some way, it said, "must be found to use the different types of carriers with a view to best serving the interests of the shipping and traveling public and at the same time with fairness to the competing agencies." The "way" is to adjust legislation and administrative control to the "conditions of today and those of the foreseeable future," the report then suggested.

"At the same time," it continued, "it seems to be agreed that no regulation should be imposed upon, or continued in force with respect to, any means of transportation unless such regulation is specifically required in the public interest; likewise, that no regulations should be imposed on any means of transportation merely because the public interest requires that it be imposed upon one or more other means of transportation."

With this "understanding of the problem," the committee disclaimed any intention "to arbitrarily rewrite the law," but it brought "within its province" the task of considering "whether some regulations, now law, should be (a) continued with their present application; (b) extended to some or all other means of transportation; (c) further limited so as to exclude some or all of the means of transportation to which they are now applicable; or (d) modified in some respects, and, so modified, then extended or limited in their application."

Subsidies Approved

The report closed with the committee's statement and discussion of the proposition that "transportation investments must attract investors on the basis of their economic value," if the carriers "are to go forward in the service of the commerce of the United States, the postal service, and the national defense." At the same time the committee approved subsidies in the transport field when it said that a state of affairs under which carriers "go forward" on the foregoing basis "is not achieved by deprivations of well-deserved and well-earned government aid; nor by threats that regulatory acts must impose unwarranted restrictions; or that there must be compulsory consolidations between carriers; nor by rate hearings that leave carriers hanging so long over the precipice of bankruptcy that stockholders give them up for lost."

Record N. R. A. A. Exhibit Is Already Assured

To date 101 companies have secured space at March event

The exhibit of the National Railway Appliances Association, to be held at the Coliseum, Chicago, on March 14-17, coincident with the golden anniversary meeting of the American Railway Engineering Association, will be the largest held by this group for many years. To date, 101 companies have arranged to occupy a total of 221 booths. At this time last year 85 firms had been assigned 178 booths. In fact, the number of companies that actually exhibited last year was no larger than the number that has already applied for space at the 1949 exhibit, and those companies occupied only 209 booths, less than the number already allotted this year.

An added incentive for manufacturers of products used by railroad construction and maintenance forces to participate in the 1949 exhibit is the fact that the concurrent meeting of the A.R.E.A. will feature a special program in celebration of the association's fiftieth anniversary. The plan of the N.R.A.A. is to place the exhibit in step with this program by decorating the exhibit hall to carry out the golden anniversary motif. Also, many individual exhibitors are specially designing their exhibits to incorporate that thought.

Plans for the exhibit are being directed by Max K. Ruppert, P. & M. Co., as president of the N.R.A.A., R. B. Fisher, Buda Company, as secretary of association, and Lewis Thomas, Q. & C.

Co., as assistant secretary and director of exhibits.

Space is still available, and additional companies desiring to take part in the exhibit should apply to Mr. Thomas, 59 E. Van Buren street, Chicago. The 101 companies that have already reserved space are:

Achuff Railway Supply Company, St. Louis, Mo.
Air Reduction Sales Company, New York.
Allied Chemical & Dye Corp., General Chemical Division, New York.
American Brake Shoe Company, Ramapo Ajax Division, Chicago.
American Fork & Hoe Co., Chicago.
American Hoist & Derrick Co., St. Paul, Minn.
Armco Drainage & Metal Products, Inc., Middletown, Ohio.
Austin-Western Company, Aurora, Ill.
Barco Manufacturing Company, Chicago.
Bernuth, Lembcke Company, New York.
Binks Manufacturing Company, Chicago.
Bird & Son, Inc., East Walpole, Mass.
Buda Company, Harvey, Ill.
Butler Manufacturing Company, Kansas City, Mo.
Caterpillar Tractor Company, Peoria, Ill.
Chain Belt Company of Milwaukee, Milwaukee, Wis.
Chicago Pneumatic Tool Company, Chicago.
Chipman Chemical Company, Chicago.
Crerar, Adams & Co., Chicago.
Cullen-Friestedt Company, Chicago.
Dearborn Chemical Company, Chicago.
Henry Disston & Sons, Inc., Philadelphia, Pa.
Duff-Norton Manufacturing Company, Pittsburgh, Pa.
Eaton Manufacturing Company, Reliance Division, Massillon, Ohio.
Electric Tamper & Equipment Co., Ludington, Mich.
Fabreeka Products Company, Boston, Mass.
Fairbanks, Morse & Co., Chicago.
Fairmont Railway Motors, Inc., Fairmont, Minn.
Frog, Switch & Mfg. Co., Carlisle, Pa.
G. & H. Rail Controls, Inc., Kansas City, Mo.
Griswold Signal Company, Minneapolis, Minn.
Harco Corporation, Cleveland, Ohio.
Harnischfeger Corporation, Milwaukee, Wis.
Hayes Track Appliance Company, Richmond, Ind.
Hobart Brothers Company, Troy, Ohio.
H[illegible]dite Corporation, Port Chester, N. Y.
H[illegible]bard & Co., Pittsburgh, Pa.
Hyman-Michaels Company, Chicago.
Industrial Brownhoist Corporation, Chicago.
Ingersoll-Rand Company, New York.
International Harvester Company, Chicago.
Johns-Manville Sales Corporation, New York.
O. F. Jordan Company, East Chicago, Ind.
Joyce-Cridland Company, Dayton, Ohio.
Kalamazoo Manufacturing Company, Kalamazoo, Mich.
Kay-Cee Manufacturing Company, Chicago.
Kershaw Company, Montgomery, Ala.
Koehring Company, Milwaukee, Wis.
Koppers Company, Pittsburgh, Pa.
Lehon Company, Chicago.
LeRoy Company, Chicago.
Locomotive Finished Material Company, Atchison, Kan.
Lufkin Rule Company, Saginaw, Mich.
Lundie Engineering Corporation, New York.
Maintenance Equipment Company, Chicago.
Mall Tool Company, Chicago.
Master Builders Company, Cleveland, Ohio.
Matisa Equipment Corporation, Chicago.
Mid-West Forging & Manufacturing Co., Chicago.
Modern Railroads Publishing Company, Chicago.
Morrison Railway Supply Corporation, Buffalo, N. Y.
Murdock Manufacturing & Supply Co., Cincinnati, Ohio.
National Aluminate Corporation, Chicago.
National Lock Washer Company, Newark, N. J.
Nichols Engineering Company, Chicago.
Nordberg Manufacturing Company, Milwaukee, Wis.
Oliver Iron & Steel Corp., Pittsburgh, Pa.
D. W. Onan & Sons, Inc., Minneapolis, Minn.
Oxweld Railroad Service Company, Unit of Union Carbide & Carbon Corp., Chicago.
P. & M. Co., Chicago.
Pettibone Mulliken Corporation, Chicago.
Power Ballaster Division, Pullman-Standard Car Manufacturing Company, Chicago.
Pyle National Company, Chicago.
Q. & C. Co., New York.
Racine Tool & Machine Co., Racine, Wis.
Rail Joint Company, Inc., New York.
Rails Company, New Haven, Conn.
Railroad Accessories Corporation, New York.
Railroad Products Company, Cincinnati, Ohio.
Railway Age, Chicago.
Railway Equipment & Publication Co., New York.
Railway Maintenance Corporation, Pittsburgh, Pa.
Railway Purchases and Stores, Chicago.
Railway Track-work Company, Philadelphia, Pa.
Reade Manufacturing Company, Jersey City, N. J.
Ric-Wil Company, Cleveland, Ohio.
Rust-Oleum Corporation, Evanston, Ill.
Skarnes Engineering & Supply Co., Minneapolis, Minn.
Sperry Products, Inc., Danbury, Conn.
Taylor-Colquitt Company, Spartanburg, S. C.
Teleweld, Inc., Chicago.
Templeton, Kenly & Co., Chicago.
Timber Engineering Company, Washington, D. C.
Unit Crane & Shovel Corp., Milwaukee, Wis.
United Laboratories, Inc., Cleveland, Ohio.
Warson Power Tools, Philadelphia, Pa.
Western Railroad Supply Company, Chicago.
White Manufacturing Company, Elkhart, Ind.
Wisconsin Motor Corporation, Milwaukee, Wis.
Woodings-Verona Tool Works, Chicago.
Woolery Machine Company, Minneapolis, Minn.

Fiscal '50 Budget Goes to Congress

Proposes funds for regulation and spending on transport

Proposed appropriations totaling over $11,330,000 for the Interstate Commerce Commission, $928,500 for the National Mediation Board and National Railroad Adjustment Board, and $715,889,000 for the Railroad Retirement Board are included in the budget for the fiscal year ending June 30, 1950, which President Truman submitted to Congress on January 10. The amount proposed for the I.C.C. includes $347,772 with which the Bureau of Service would carry on in fiscal 1950 "certain functions now the responsibility of the Office of Defense Transportation," the latter meanwhile getting a supplemental appropriation of $95,000 for the remainder of the current fiscal year ending next June 30.

The budget also proposes fiscal 1950 funds of $423,500,000 for the Public Roads Administration; $241,934,100 for the Army's Corps of Engineers to spend on construction and maintenance of navigation facilities on rivers and harbors, including $20,000,000 for a start on the proposed St. Lawrence seaway and power project which President Truman hopes to have approved by the present Congress; and $151,008,500 for the Civil Aeronautics Administration, including an estimated $69,820,984 for operation of the "federal airway system," $29,650,000 for the establishment and development of additional air-navigation facilities, and $15,000,000 for the federal-aid airport program.

I.C.C. Funds

The $11,334,600 proposed for the I.C.C. compares with appropriations totaling $10,895,817 for the current fiscal year. Most of the I.C.C. appropriation covers "general expenses," for which the budget proposes $9,712,100 for fiscal 1950. The increase of $580,783 above the comparable fiscal 1949 appropriation of $9,131,317 is accounted for mainly by the additional $347,772 proposed for carrying on O.D.T. functions, as noted above, and the transfer to this "general" category of the allowance for printing and binding for which the I.C.C. has a separate fiscal 1949 appropriation of $205,000. The largest item of the I.C.C.'s "general expenses" is the cost of operating its Bureau of Motor Carriers—expected to be $3,118,587 in fiscal 1950 as compared with $3,215,910 in the current fiscal year.

I.C.C. appropriations for railroad safety and locomotive inspection still remain outside the "general expenses" grouping. For railroad-safety work, the budget proposes $951,000, an increase of $43,000 above the fiscal 1949 appropriation; for locomotive inspection, it proposes $667,000, an increase of $52,000.

The supplemental fiscal 1949 appropriation of $95,000 which the Administration plans to seek for O.D.T. would be in addition to $340,000 already appropriated for that agency for the current fiscal year. The budget's "explanatory statement" said that the $340,000 contemplated that O.D.T. would be liquidated by February 28, 1949, but it went on to note the subsequent extension until June 30, 1949, of President Truman's powers to allocate use of transportation facilities and equipment of rail carriers, which have been delegated to O.D.T. The supplemental estimate is planned to provide for continuance of O.D.T. operations until the present expiration date of those delegated powers.

Mediation, Adjustment, Retirement Boards

The $928,500 proposed for the Mediation and Adjustment boards compares with the $862,550 provided for the current fiscal year. The fiscal 1950 proposal includes $360,400 and $468,100, respectively, for N.M.B. and Adjustment Board "salaries and expenses." The remaining $100,000 is for arbitration and emergency boards. The budget's "explanatory statement" said that there had been an increase in the number and percentage of Adjustment-Board cases assigned to referees, and that this situation will require a supplemental appropriation for the current fiscal year.

The $715,889,000 proposed for the Railroad Retirement Board includes the amount to be appropriated to the Railroad Retirement Account in the Treasury and funds for the Board's administrative expenses under the Railroad Retirement Act. Formerly there were separate appropriations for these two purposes. The consolidation is among "extensive changes" which the budget statement recommends in the appropriation structure of the board, and which it explains as follows:

"Heretofore, these appropriations have

been treated as general fund appropriations, with offsetting deductions to reimburse the general fund from the taxes collected in support of the railroad retirement program. In 1950, this appropriation will be derived from the railroad retirement account (trust fund).

"The railroad retirement appropriated account is changed from an annual specific to an annual indefinite appropriation. This will make available to the railroad retirement account (trust fund) all of the taxes collected in support of this program each year whether or not the amount collected is greater or less than the estimated and reestimated amounts. This change will simplify the handling of funds to be made available to the account (trust fund) and will enable the Treasury to transfer such funds as they are collected rather than in advance of actual tax receipts.

"The annual appropriation from general funds for military service credits has been omitted for 1950. It is proposed to defer further appropriations for this purpose until the actual need for additional funds arises. This will in no way impair the actuarial soundness of the trust fund. The subject of military service credits require careful study in order to avoid multiple contributions from the general funds to different programs by reason of the same military service and to eliminate the ensuing administrative and fiscal complications inherent in the advance payments of the costs of such military service credits on an estimated basis.

"These changes will be beneficial in simplifying the financial arrangements between the railroad retirement program and the Treasury and will lessen the immediate demands upon the Treasury for funds which for the most part will not be required for a long time to come."

The Retirement Board will also have an estimated $11,000,000 during fiscal 1950 for administration of the Railroad Unemployment Insurance Act. That act provides that taxes collected thereunder in an amount equal to 0.2 per cent of taxable payroll shall be available for administrative purposes.

Highways, Waterways, Airways

The $423,500,000 proposed for the Public Roads Administration includes $400,000,000 for the federal-aid post-war highway program. The current fiscal year's appropriations for P.R.A. have totaled $435,588,854, including $427,288,854 for the federal-aid highway program.

Aside from the $20,000,000 for the St. Lawrence seaway and power projects, the $241,934,100 proposed for the Army engineers' rivers and harbors work includes $144,934,100 for new construction, $2,000,000 for "advance planning," and $75,000,000 for "normal maintenance and operation of completed works." For the current fiscal year, appropriations for rivers and harbors work have totaled $166,989,100.

The $69,820,984 which the Civil Aeronautics Administration is expected to spend for operation of the federal airway system would be included in a general appropriation of $97,437,000 for C.A.A. "salaries and expenses." Also included would be $11,002,824 for work in the field of "aviation safety." From its "salaries and expenses" appropriation of $82,451,000 for the current fiscal year, the C.A.A. has allocated $61,247,797 and $10,850,083, respectively, for these activities. The proposed fiscal 1950 appropriations totaling $29,650,000 for the establishment and development of additional air-navigation facilities compare with appropriations totaling $10,199,000 for the current fiscal year. The $15,000,000 proposed for the federal-aid airport program compares with the fiscal 1949 appropriation of $3,000,000.

Freight Car Loadings

Loadings of revenue freight in the week ended January 8 totaled 721,507 cars. This was an increase of 136,879 cars, or 23.4 per cent, above the preceding week (which included the New Year's day holiday), a decrease of 109,303 cars, or 13.2 per cent, under the corresponding week of 1948, and a drop of 109,446 cars, or 13.2 per cent, below the equivalent 1947 week.

Loadings of revenue freight for the week ended January 1 totaled 584,628 cars, and the summary for that week as compiled by the Car Service Division, A.A.R., follows:

Revenue Freight Car Loadings
For the week ended Saturday, January 1

District	1948	1947	1946
Eastern	115,427	120,191	127,631
Allegheny	128,754	145,050	149,155
Pocahontas	40,594	57,001	60,494
Southern	92,536	124,660	119,612
Northwestern	63,966	69,820	72,826
Central Western	91,263	106,945	108,423
Southwestern	52,088	58,452	49,287
Total Western Districts	207,317	235,217	230,536
Total All Roads	584,628	682,119	687,428
Commodities:			
Grain and grain products	36,848	37,445	44,673
Livestock	8,114	9,613	14,365
Coal	123,602	169,555	167,751
Coke	15,131	14,465	13,635
Forest products	23,023	34,857	32,891
Ore	9,430	10,380	10,588
Merchandise l.c.l.	74,186	86,128	97,311
Miscellaneous	294,294	319,676	306,214
January 1	584,628	682,119	687,428
December 25, 1948	609,239	599,354	627,967
December 18, 1948	754,545	832,130	836,185
December 11, 1948	783,276	854,159	828,751
December 4, 1948	804,183	878,588	729,084

In Canada.—Carloadings for the week ended January 1 totaled 52,436 cars, as compared with 59,698 cars for the previous week, and 53,484 cars for the corresponding week last year, according to the compilation of the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
January 1, 1949	52,436	27,360
January 3, 1948	53,484	28,195

Senate Committees Organized; Johnson Heads Commerce Group

Members of the new Senate received their committee assignments on January 10, and the chairmanship of the Committee on Interstate and Foreign Commerce went to Senator Johnson, Democrat of Colorado, as had been expected. Senator Johnson was the ranking Democratic member of the committee in the previous Congress, when the Republicans were in control and former Senator White of Maine was the chairman. Mr. White was not a candidate for reelection to the Senate.

The new committee has 13 members—8 Democrats and 5 Republicans. The Democratic members, in addition to Chairman Johnson, are: Senators McFarland of Arizona, Magnuson of Washington, Myers of Pennsylvania, McMahon of Connecticut, O'Conor of Maryland, Johnson of Texas, and Kefauver of Tennessee. Republican members are: Senators Tobey of New Hampshire, Reed of Kansas, Brewster of Maine, Capehart of Indiana, and Bricker of Ohio.

Legislation relating to railroad labor and the railroad retirement and unemployment insurance systems is handled in the Senate by the Committee on Labor and Public Welfare, of which Senator Thomas of Utah is the new chairman, replacing Senator Taft, Republican of Ohio, who has become the ranking minority member. Democratic members, in addition to Chairman Thomas, are: Senators Murray of Montana, Pepper of Florida, Hill of Alabama, Neely of West Virginia, Douglas of Illinois, and Humphrey of Minnesota. Republican members, in addition to Mr. Taft, are: Senators Aiken of Vermont, Smith of New Jersey, Morse of Oregon, and Donnell of Missouri.

Says Freight-Bill Reaudit Will Yield U. S. More than $350 Million

The Subcommittee on Procurement and Buildings of the House Committee on Expenditures in the Executive Departments now predicts that the government's recoveries, as a result of the reaudit of railroad freight bills paid during World War II, will exceed the $350,000,000 which the subcommittee previously said would be recovered. This latest pronouncement on the matter came in the subcommittee's annual report submitted to the full committee on December 30, 1948, the $350,000,000 estimate having been made originally in a report issued on August 7, 1948.

The latter was noted in the *Railway Age* of August 14, 1948, page 72, which also reported comment from William T. Faricy, president of the Association of American Railroads. Mr. Faricy said that "a very large part of the supposed overcharges" is due to differences of opinion between the railroads and the government as to the applicability of the land-grant rates then in effect. He also pointed out that the government's check of the bills is a "one-way" audit, which concerns itself only with overcharges and ignores errors of the undercharge variety.

The subcommittee became known as the Bender committee because it was headed by former Representative Bender, Republican of Ohio, who was defeated for reelection. Its inquiry also covered "federal traffic management," and in that connection the annual report said the investigation "supports the belief that tremendous savings could be

made through the setting up of a central traffic bureau to negotiate freight rates and otherwise handle the traffic business of the government."

Meanwhile, the subcommittee found that it lacked sufficient information for a conclusion with respect to charges it heard that war-time freight rates were negotiated for the Army by officers "who had been furloughed from the railroads and who remained thoroughly railroad-minded and solicitous about the welfare of their former employers." The report, however, did express the subcommittee's belief that such charges "indicate the advisability of building up a body of experienced, independent traffic experts in the government service."

The report's discussion of the reaudit of wartime freight vouchers noted that the subcommittee's August 7, 1948, report had called for the reaudit after concluding that the "accelerated audit system" instituted during the war years was "inadequate." The comptroller general, as the report put it, "expressed his appreciation" to the subcommittee "for pointing out the need for reorganizing" the General Accounting Office's Transportation Division; and "he requested, and with the endorsement of this subcommittee received, a supplemental appropriation of $680,000 to carry on this work during fiscal 1949."

The report went on to say that up to November 13, 1948, the General Accounting Office had reaudited $71,289,689 in vouchers on which $3,801,750 had been determined as overcharges in the (*Continued on page* 66.)

Gross and Net for Last Year's First 11 Months

The net railway operating income of $937,690,381 and the estimated net income of $652,000,000 which Class I railroads earned in last year's first 11 months, as noted in the *Railway Age* of January 8, were derived from gross revenues of $8,865,022,309. The November and 11-months comparisons of 1948 with 1947 are given in the accompanying table, which was part of the latest monthly statement issued by the Association of American Railroads. The statement also noted that 21 Class I roads failed to earn interest and rentals in the 11 months, of which eight were in the Eastern district, four in the Southern region, and nine in the Western district.

Class I roads in the Eastern district in the 11 months had an estimated net income of $249,000,000 compared with $138,000,000 in the same period of 1947. For November, their estimated net income, was $25,000,000 compared with $15,000,000 in November, 1947. Those same roads in 11 months had a net railway operating income of $403,261,346 compared with $280,784,262 in the same period of 1947. Their net railway operating income in November amounted to $35,228,235 compared with $26,610,689 in November, 1947. Gross in the Eastern district in the 11 months totaled $4,039,736,903, an increase of 12.2 per cent compared with the same period of 1947, while operating expenses totaled $3,181,465,686, an increase of 9.7 per cent above 1947.

Class I roads in the Southern region in the 11 months had an estimated net income of $87,000,000 compared with $47,000,000 in the same period of 1947. For November, they had an estimated net income of $7,000,000 compared with a net income of $4,000,000 in November, 1947. Those same roads in the 11 months had a net railway operating income of $126,606,769 compared with $88,916,789 in the same period of 1947. Their net railway operating income in November amounted to $10,817,492 compared with $8,364,219 in November, 1947. Gross in the Southern region in the 11 months totaled $1,205,616,578, an increase of 11.5 per cent compared with the same period of 1947, while operating expenses totaled $939,058,857, an increase of 8.8 per cent above 1947.

Class I roads in the Western district in the 11 months had an estimated net income of $316,000,000 compared with $233,000,000 in the same period of 1947. For November, they had an estimated net income of $31,000,000 compared with $25,000,000 in November, 1947. Those same roads in the 11 months had a net railway operating income of $407,822,266 compared with $334,210,770 in the same period of 1947. Their net railway operating income in November amounted to $38,019,984 compared with $30,979,579 in November, 1947. Gross in the Western district in the 11 months totaled $3,619,608,828, an increase of 13.1 per cent compared with the same period of 1947, while operating expenses totaled $2,702,287,979, an increase of 12.4 per cent above 1947.

CLASS I RAILROADS—UNITED STATES

	Month of November 1948	1947
Total operating revenues	$825,325,812	$755,876,093
Total operating expenses	637,471,662	595,462,585
Operating ratio—per cent	77.24	78.78
Taxes	90,304,661	80,131,333
Net railway operating income (Earnings before charges)	84,065,711	65,954,487
Net income, after charges (estimated)	63,000,000	44,000,000
	Eleven Months Ended November 30	
Total operating revenues	$8,865,022,309	$7,882,327,302
Total operating expenses	6,822,812,522	6,167,601,077
Operating ratio—per cent	76.96	78.25
Taxes	946,925,595	855,534,031
Net railway operating income (Earnings before charges)	937,690,381	703,911,821
Net income, after charges (estimated)	652,000,000	418,000,000

Additional General News appears on pages 66 and 68.

CAR SERVICE

The Car Service Division, Association of American Railroads, canceled,, as of January 10, Special Car Order No. 50 which required eastern, Allegheny, Pocahontas and southern roads to expedite the return home of plain box cars owned by 13 western roads. The order had been in effect since December 1, 1948. The cancellation notice said that the supply of plain box cars on the western roads has increased "substantially", and that demands for box cars "remain at a low "sufficient to meet all requirements currently."

I.C.C. Service Order No. 95, which makes C. W. Taylor, an agent of the commission for the purpose of controlling the distribution and use of refrigerator cars, has been reissued as Revised Service Order No. 95. The revised order became effective January 1. It does not modify the authority of Mr. Taylor, who is manager of the Refrigerator Car Section, Car Service Division, A.A.R.; but it does eliminate the old order's provisions under which other agents of the commission had local jurisdiction in California-Arizona and Texas. Other changes advance the expiration date from July 15 to June 30, and eliminate language having reference to the war emergency.

Revised I.C.C. Service Order No. 87-A, effective January 15, vacated as of that date Revised Service Order No. 87 which modified the free time allowed on tidewater coal and coal products at North Atlantic ports. The order had previously been scheduled to expire July 15.

EQUIPMENT AND SUPPLIES

W. P. Will Spend $3 Million

The board of directors of the Western Pacific this week authorized expenditure of more than $2,250,000 for installation of centralized traffic control on 117 miles of line between Portola, Cal., and Gerlach, Nev. In addition, some $880,000 will be spent for 30 mi. of new 115-lb. rail to replace 85-lb. rail south of Oroville, Cal.

SIGNALING

The **St. Louis-San Francisco** has placed an order with the Union Switch & Signal Co. for materials to extend the existing 134-mi. Springfield, Mo.-Dillon centralized traffic control system an additional 70 mi. to Pacific, Mo. The control point for the entire territory will

remain at Springfield, with the system being handled by a 17½-ft. style C control machine. The order involves H-2 searchlight high and dwarf signals, style M-22A dual-control electric switch layouts, style SL-6A electric locks for hand-operated main line switches, complete coded carrier office and field apparatus for this line extension, necessary relays, rectifiers, transformers and housings. Field work will be handled by railway forces.

Fairbanks, Morse & Co. has ordered eight sets of intermittent inductive train control equipment from the General Railway Company, for installation on Diesel-electric freight locomotives for the New York Central.

FREIGHT CARS

The **Detroit & Toledo Shore Line** has ordered 125 70-ton, steel, lightweight covered hopper cars from the Greenville Steel Car Company. Delivery is scheduled for next June.

ORGANIZATIONS

The **Southern & Southwestern Railway Club** will hold its January 20 meeting at the Rainbow Roof, Ansley Hotel, Atlanta, Ga., at 10:00 a.m. **E. H. Holloway,** superintendent Diesel maintenance on the Central of Georgia, Macon, Ga., will address the meeting on "Diesel Locomotives—Operation and Maintenance."

The next meeting of the **Car Department Association of St. Louis** will be held on January 18, at 8:00 p.m., at the Hotel DeSoto, St. Louis, Mo. An address entitled "The Railroads and the National Welfare" will be given by D. V. Fraser, president of the Missouri-Kansas-Texas.

The next meeting of the **Railway Club of Pittsburgh** will be held on January 20 at 8:00 p.m., at the Fort Pitt Hotel, Pittsburgh, Pa. H. O. Collis, electrical engineer, Owens-Corning Fiberglas Corporation, will talk on "Fiberglas Products in the Electrical and Railroad Fields." A colored film, "Watts in Glass" will be shown.

The **Metropolitan Traffic Association of New York** will hold its regular meeting on January 27 at the Hotel Statler, New York.

The **New York Railroad Club** will hold its next meeting on January 20 in the Engineering Societies Auditorium, 33 West 39th street, New York. C. D. Stewart, vice-president, Westinghouse Air Brake Company, will talk on "A New Westinghouse Brake for Light-Weight Freight Cars—Load Compensating". Joseph F. Griffin, chief engineer, the Superheater Company, and Norman O. Kirkby, executive engineer, Vapor Heating Corporation, will present papers on "Train Steam Heating Plants for Diesel Locomotives."

SUPPLY TRADE

Budd 1948 Passenger Car Production Topped 1947

Production of all-stainless steel railroad passenger cars at Budd Company's Red Lion plant in Philadelphia, Pa., increased to approximately 200 in 1948, compared with 156 in the preceding year. The current backlog of cars on order is 475, which, Edward G. Budd, Jr., president, said, "will keep our railway division busy well into 1950." In an effort to speed up production, the capacity of the plant was increased last year until now work is progressing simultaneously on 110 cars. According to an announcement made recently by the War Assets Administration, Budd was the highest bidder for the purchase of the government-owned Red Lion plant. The W.A.A. has recommended that the bid be accepted and Budd officials expect the sale to become final at an early date.

Combustion Engineering And Superheater Merge

The merger of the Combustion Engineering Company and the Superheater Company, affiliated since 1933, as Combustion Engineering-Superheater, Inc., became effective on December 31. The new company will continue the activities of the former companies in the manufacture and installation of steam

Frederic A. Schaff

generating and associated products and such equipment as chemical recovery units for pulp mills, flash drying systems for a wide variety of materials, sewage incineration systems, mills for pulverizing products of the process industries generally, soil pipe and castings, domestic water heaters and range boilers.

Officers of the new company are Frederic A. Schaff, chairman; Samuel G. Allen, chairman of the executive committee; Joseph V. Santry, president; Martens H. Isenberg, executive vice-president; Harold H. Berry, vice-president in charge of finance; George D. Ellis, vice-president and controller;

Samuel G. Allen

Otto W. Strauss, vice-president and treasurer; Wilbur H. Armacost, vice-president in charge of engineering; Donald S. Walker, vice-president in charge of sales; Albert C. Weigel, vice-president; Amaziah J. Moses, vice-president, Chattanooga division; John S. Skelly, vice-president, Monongahela division; Arthur Williams, vice-president; Irving B. Swigart, secretary and assistant treasurer; and Thomas F. Morris, assistant to the chairman and assistant secretary.

Stephen W. Benedict, formerly materials engineer in the cement and concreting materials section of the National Bureau of Standards, has been appointed director of research of the **Master Builders Company,** Cleveland, Ohio.

Arthur G. Lohse, formerly sales engineer of **Iron & Steel Products, Inc.,** at Chicago, has been appointed vice-president in charge of the firm's New York office. He succeeds **David Newhall,** vice-president at New York, and **John S. Wood,** also located there, both of whom have retired.

J. R. Brummett, assistant superintendent of the **American Lumber & Treating Co.'s** wood preserving plant in Baltimore, Md., has been appointed superintendent of that plant, succeeding **Colonel L. H. Harper,** who has retired.

C. P. Madely has been appointed manager of the **Montreal Locomotive Works,** Montreal, Que. Mr. Madely began his business career in 1923 with the Canadian Pacific where he served his apprenticeship in the mechanical department. He joined the Montreal Locomo-

tive Works in 1937 as a draftsman and was appointed chief draftsman in 1942. He was transferred to the firm's tank arsenal in 1943 as engineer in charge of tank design and was appointed coordinator of purchasing, material, engineering and production in the same year.

C. P. Madely

In 1944 he was appointed assistant vice-president of tank arsenal and assumed the duties of works manager in the same year. In 1945 he returned to the locomotive division as assistant works manager and in 1946 was appointed works manager.

George L. Green, formerly manager of miscellaneous sales for the Pullman-Standard Car Manufacturing Company at Chicago, has joined the **Spring Packing Corporation** in that city as vice-president in charge of sales. Mr. Green, in addition to other duties, will be responsible for the research and development work of a newly created new products

George L. Green

division of Spring Packing. Born at Providence, R. I., on October 27, 1908, he received his higher education at Phillips Exeter Academy and Yale University. He began his business career in 1931 with the Continental Illinois National Bank & Trust Co. and in 1934 joined the Union Asbestos & Rubber Co. From the latter year to 1944, Mr. Green served with Union Asbestos as, successively, service engineer, sales engineer, salesman and assistant vice-president. He next joined the Elastic Stop Nut Corporation and served for a short time as railroad sales manager. He then became associated with the H. K. Porter Company as vice-president, remaining in that post until early in 1947, when he was appointed district sales manager in charge of western regional sales for the American Locomotive Company. In April, 1948, Mr. Green joined Pullman-Standard as manager of miscellaneous sales, which position he held at the time of his association with Spring Packing.

Maynard B. Terry has been appointed vice-president of the American Brakeblok division of the **American Brake Shoe Company,** with headquarters in Detroit, Mich. Mr. Terry, since joining the com-

Maynard B. Terry

pany in 1943, has served in various sales capacities and was general sales manager at the time of his recent appointment. The company also has announced

James J. Nelson

the appointment of **James J. Nelson,** formerly sales representative, as eastern sales manager of the National bearing division, with headquarters in Meadville, Pa. Before joining Brake Shoe, Mr. Nelson was a divisional vice-president of the Baldwin Locomotive Works.

W. Douglas Peters, assistant general sales manager of the **Reynolds Metals Company,** has been appointed central division manager, with headquarters at Chicago.

George L. Cotter, western manager of the **Westinghouse Air Brake Company,** with headquarters at Chicago, has been appointed director of engineering at the firm's plant in Wilmerding, Pa. He is succeeded by **T. W. Masterman,** district engineer at Chicago, who in turn is replaced by **W. W. Wagner,** engineer at Chicago.

The **Kysor Heater Company,** Cadillac, Mich., has announced the following changes in personnel: **Raymond A. Weigel,** general manager; **D. J. Mohl,** secretary; **William Brown,** sales and service manager; **E. W. Avery,** chief engineer; **D. R. Ferris,** research and development engineer, and **C. T. Janik,** purchasing agent.

John A. Lindberg has been appointed to the newly created position of manager of railway service of the Spicer manufacturing division of the Dana Corporation, Toledo, Ohio. Mr. Lindberg joined the Salisbury Axle Company, Jamestown, N. Y., about 20 years ago and was transferred to Toledo when the Salisbury facilities were merged with those of Spicer.

Roger S. Schofield has been placed in charge of transportation sales of the Philadelphia, Pa., district office of the **Baldwin Locomotive Works,** to succeed **Walker H. Evans,** who was recently promoted to district manager. Mr. Schofield joined Baldwin in 1942 and served in various engineering and sales capacities at the company's home office before being assigned to the sales staff of the Philadelphia district office in 1945.

Robert M. Whitney, assistant advertising manager of the **Automatic Transportation Company,** Chicago, has been promoted to advertising manager.

OBITUARY

Theodore W. Robinson, retired president and board chairman of Ditto, Incorporated, Chicago, and former vice-president of the Illinois Steel Company, died at Palm Beach, Fla., on December 30, 1948, at the age of 86.

Carl A. Pinyerd, special agent and former district manager of the Safety Car Heating & Lighting Co.'s Chicago office, whose death on December 22, 1948, was reported in the *Railway Age* of January 1, was born at Galien, Mich., on September 23, 1882. He entered railroad service with the St. Louis-San Francisco in 1902 as electrical repairman and subsequently advanced to elec-

trical foreman and traveling electrician. Mr. Pinyerd joined the Safety Car Heating & Lighting Co., at Chicago in August, 1909, as service inspector and advanced successively to sales representative, commercial engineer and district manager. He held the latter position until reaching retirement age, but continued service with the company as special agent.

ABANDONMENTS

Norfolk Southern.—Examiner P. C. Albus has recommended in a proposed report that Division 4 of the Interstate Commerce Commission authorize this road to abandon its so-called Currituck branch, extending from a point near Euclid, Va., to the end of the line at Back Bay, approximately 16.2 miles. The line has been maintained for several years only to the extent necessary to operate trains at a maximum speed of 15 m.p.h. The report also notes that a wholly-owned subsidiary of the applicant operates common-carrier bus and truck services as far south as Knotts Island, N. C., serving all stations on the line.

Division 4 of the Interstate Commerce Commission has **authorized:**

Erie & Michigan Railway & Navigation.—To abandon operations under lease and trackage rights, respectively, over Detroit & Mackinac lines between Alabaster, Mich., and Alabaster Junction, 4.3 miles, and between Alabaster Junction and East Tawas, 4.1 miles. The division dismissed, for lack of jurisdiction over abandonments of "switching or sidetracks," that part of the application wherein the E. & M. R. & N. sought authority to abandon its own "entire line," which is less than one mile in length, located in Alabaster. The report noted that the abandonments will not interrupt service to the public, because the D. & M. will acquire the physical assets of the E. & M. R. & N. and continue operations over all lines involved. The D. & M. joined in the application, but the division also dismissed that part of the application with a finding that this road was not a necessary party to the proceeding.

Maine Central.—To abandon a 19.4-mile line between Coos Junction, N. H., and North Stratford. Service between those points will be maintained by operations under trackage rights over lines of the Boston & Maine and Canadian National.

Applications have been filed with the I.C.C. by:

Missouri Pacific.—To abandon its 27.5-mile Mound City branch from Monteith Junction, Mo., to Mound City. The application stated that coal mines formerly served by the line have been worked out, that other traffic is insufficient to pay operating costs, and that there is no prospect of any increase in such traffic.

Virginia & Truckee.—To abandon its entire line which extends from Reno, Nev., to Minden, 46.5 miles. The application stated that the line "does not handle sufficient traffic to pay the cost of its maintenance and operation."

FINANCIAL

Cambria & Indiana.—*New Director.*—C. M. Johnson, formerly secretary and treasurer of this road, has been elected a member of the board of directors.

New Orleans, Texas & Mexico.—*End of Reorganization Asked.*—A petition to take this road (subsidiary of the Missouri Pacific) out of reorganization has been filed in federal district court at St. Louis, Mo., on behalf of John Speed Elliott and the bondholders' protective committee for M. P. 5¼ per cent secured serial bonds. The petitioners, who own or represent in excess of $1,500,000 principal amount of these bonds and more than 50 per cent of the common stock of N. O. T. & M. in public hands, claim the road is completely solvent. The N. O. T. & M. is being reorganized with the M. P., a modified plan for which was reported in detail in the *Railway Age* of November 6, 1948, page 54.

Reading.—*New Director.*—William J. Meinal, president of the Heintz Manufacturing Company, has been elected a director of this road to succeed Augustus S. Blagden, resigned.

Southern.—*Acquisition.*—This road has applied to the Interstate Commerce Commission for authority to purchase, for $150,000, that section of the Buffalo, Union-Carolina's main line from Buffalo, S. C., to Union, 4.6 miles. The Buffalo has pending before the commission an application for authority to abandon the remainder of its line, from Union to Pride, 14.2 miles.

New Securities

Division 4 of the Interstate Commerce Commission has **authorized:**

Chicago, Milwaukee, St. Paul & Pacific.—To assume liability for $4,540,000 of equipment trust certificates, Series GG, to finance in part the acquisition of 30 Diesel-electric locomotives at a total cost of $6,073,108 (see *Railway Age* of December 25, 1948, page 56). The certificates will be dated January 1, and will mature in 20 semi-annual installments of $227,000 each, beginning July 1. The report approves a selling price of 99.0819 for the issue with a 2⅛ per cent interest rate—the bid of Lee Higginson Corporation and associates which had been accepted subject to commission approval and which will make the average annual interest cost approximately 2.32 per cent.

Pennsylvania-Long Island. — To assume liability jointly for $5,445,000 of equipment trust certificates, series K, the final installment of a $9,480,000 issue, proceeds of which are being used to finance in part acquisition of equipment expected to cost a total of $10,592,500. The equipment, for service on the Long Island, includes 38 Diesel-electric switching locomotives and 50 double-deck passenger motor cars (see *Railway Age* of May 1, 1948, page 66). The certificates will be dated May 1, 1948, and will mature in 15 annual installments of $363,000 each, beginning May 1, 1949. They will be subject to redemption at any time at the option of the Long Island, as a whole or in part (but not less than the whole of any maturity) in the inverse order of their maturity, on any dividend date upon 30 days' notice, or on any other date on 60 days' notice. The redemption prices range from 102⅛ to par. The commission's report approved a selling price of 99.4943 with a 2¾ per cent interest rate, the bid of Harriman Ripley & Co. and Lehman Brothers, which will make the average annual cost about 2.85 per cent. The certificates were reoffered to the public at prices yielding from 1.5 per cent to 3 per cent, according to maturity.

Applications have been filed with the I.C.C. by:

International-Great Northern.—To assume liability for $1,870,000 of equipment trust certificates to finance in part the acquisition of 500 70-ton gondola cars at a total cost of $2,500,000 ($5,000 per car). The cars will be built in Missouri Pacific shops. The certificates would be dated January 15 and would mature in 10 annual installments of $187,000, beginning January 15, 1950. They would be sold on the basis of competitive bids, and the interest rate would be fixed by such bids.

Pennsylvania.—To assume liability for $7,965,000 of equipment trust certificates, series V, the second and final installment of a $15,900,000 issue, proceeds of which would be applied toward purchase of equipment expected to cost a total of approximately $19,875,000. The equipment, some of which has been delivered, includes 22 Diesel-electric freight locomotive units, 101 Diesel-electric switching locomotives, and 49 passenger-train cars. The certificates would be sold on the basis of competitive bids with the interest rate determined by such bids. They would be dated November 1, 1948, and would mature in 15 annual installments of $531,000 each, beginning November 1, 1949. A December 2, 1948, report by the commission's Division 4 approved sale of the proposed issue's first installment ($7,935,000) of certificates (see *Railway Age* of December 11, 1948, page 80).

St. Louis, Brownsville & Mexico.—To assume liability for $1,870,000 of equipment trust certificates to finance in part the acquisition of 500 70-ton gondola cars at a total cost of $2,500,000 ($5,000 per car). The cars will be built in Missouri Pacific shops. The certificates would be dated January 15 and would mature in 10 annual installments of $187,000 each, beginning January 15, 1950. They would be sold on the basis of competitive bids, and the interest rate would be fixed by such bids.

Dividends Declared

Cleveland, Cincinnati, Chicago & St. Louis.—common, $5.00, semi-annually; 5% preferred, $1.25, quarterly; both payable January 31 to holders of record January 14.

Piedmont & Northern.—75¢, payable January 20 to holders of record January 5; extra, $2.00, payable January 20 to holders of record January 5.

Pittsburgh, Cincinnati, Chicago & St. Louis.—$2.50, semi-annually, payable January 20 to holders of record January 10.

Reading.—50¢, payable February 20 to holders of record January 13.

Average Prices Stocks and Bonds

	Jan. 4	Last week	Last year
Average price of 20 representative railway stocks	42.09	43.39	47.72
Average price of 20 representative railway bonds	88.28	88.35	85.14

	Jan. 11	Last week	Last year
Average price of 20 representative railway stocks	43.67	42.09	49.06
Average price of 20 representative railway bonds	89.10	88.28	86.33

CONSTRUCTION

Chesapeake & Ohio.—This road has awarded contracts, at the indicated probable costs, to Echols Brothers, Staunton, Va., for a line change at Low Moor, Va. ($130,900), and to B. F. Parrott & Co., Roanoke, Va., for repairing and extending bridge No. 1913 at Mechums River, Va. ($53,400), and for constructing metal sheds over wheel-changing space at Russell, Ky. ($40,000), and Parsons, Ohio ($51,000). The road has authorized construction of an engine washing platform at Cheviot, Ohio, at an estimated cost of $30,200, and replacement of a single-channel carrier telephone system with a 3-channel system from Huntington, W. Va., to Columbus, Ohio, and from Huntington to Covington, Ky., at a probable cost of $89,000. The latter project will be undertaken by the road's own forces.

Southern.—This road has authorized the following projects, all but the last of which will be undertaken by company forces: Reconstructing Ward Street underpass, High Point, N. C. ($30,000); constructing loadout track facilities for the Campbell Limestone Company, Beverly, S. C. ($22,800); extending yard track facilities to accommodate Diesel trains at Princeton, Ind. ($22,550); extending yard track and transforming it to passing track for Diesel trains at Duncan, Ind. ($22,000); and constructing fuel oil facilities, including a 1,000,000-gal. storage tank, at John Sevier, Tenn. ($36,300). Figures in parentheses indicate the probable costs of each project.

Spokane, Portland & Seattle.—This road has awarded to Clifton & Applegate, Spokane, Wash., a contract for a $151,800 project which involves lining with concrete 749 ft. of tunnel No. 1 on the Oregon Trunk (subsidiary of the S. P. & S.) and construction of a concrete portal at the east end of the tunnel. The same contractors are making a line change in the vicinity of Oregon Trunk milepost 90.5, at an estimated cost of $186,347.

RAILWAY OFFICERS

EXECUTIVE

G. Marks, manager of stations and transfers of the New York, New Haven & Hartford at New Haven, Conn., has been appointed special assistant to operating vice-president. **J. F. Doolan.** Mr. Marks' former position has been discontinued and **C. F. Caley,** assistant to vice-president, will have jurisdiction also over stations and transfers, pick-up and delivery service, freight claim prevention, and related activities.

S. T. Keiley, assistant to general manager of the New York Central lines Buffalo and East, with headquarters at Syracuse, N. Y., has been appointed transportation assistant to vice-president at New York, succeeding **H. J. Palmer,** who has been appointed office assistant to vice-president at New York, to succeed **H. F. Wolff,** appointed assistant to assistant vice-president at New York.

C. J. Sayles, general freight traffic manager of the Wabash, with headquarters at St. Louis, Mo., has been appointed executive assistant to the vice-president—traffic at the same point. His former position has been abolished.

J. P. Cowley, assistant general manager of the Gulf, Colorado & Santa Fe at Galveston, Tex., has been appointed vice-president and general manager at that point, succeeding **R. B. Ball,** who has retired after 47 years of service.

Edward B. Whitman, special representative of the Western Maryland at Baltimore, Md., has been appointed executive assistant.

Col. Joseph G. Ward, chief clerk to the vice-president of operations of the Delaware, Lackawanna & Western at New York, has been promoted to executive assistant in the office of the president.

C. S. Sanderson, assistant general manager of the Atlantic Coast Line, has been appointed assistant to president, with headquarters as before at Wilmington, N. C.

F. E. Short has been elected vice-president and general manager of the Alabama, Tennessee & Northern, with headquarters at Mobile, Ala. **J. C. O'Neill,** general manager and traffic manager—solicitation, with headquarters at Mobile, has been elected vice-president—traffic at that point.

FINANCIAL, LEGAL and ACCOUNTING

F. Elder, assistant auditor of claims of the Canadian Pacific, with headquarters at Winnipeg, Man., has been promoted to auditor of claims there, succeeding the late **E. V. Neville,** whose death was reported in the *Railway Age* of December 11, 1948. **A. W. Richmond,** freight claim agent at Montreal, Que., has replaced Mr. Elder. **G. P. Connolly,** freight claims agent at Winnipeg, has been transferred to Montreal, succeeding Mr. Richmond. **W. Murphy,** chief clerk to the freight claims agent at Winnipeg, has succeeded Mr. Connolly.

E. G. Wangelin, purchasing agent of the Illinois Terminal, with headquarters at St. Louis, Mo., has been elected treasurer of the company.

Robert A. Husted, right-of-way agent of the Chicago, Rock Island & Pacific, with headquarters at Chicago, has been appointed assistant real estate and tax commissioner at that point.

James G. Cunningham, assistant secretary of the Delaware, Lackawanna & Western at New York, has been appointed assistant secretary and assistant treasurer.

J. B. Fleming, auditor and general freight agent of the Cambria & Indiana at Philadelphia, Pa., has been elected secretary and treasurer of that road, succeeding **C. M. Johnson,** who has resigned after 24 years of service. **R. W. Seiling,** assistant auditor and assistant general freight agent, succeeds Mr. Fleming.

John F. Reilly, attorney in the law department of the Delaware, Lackawanna & Western at New York, has been promoted to assistant general attorney.

Robert R. Richards, general auditor of the New York Central system, with headquarters at New York, has retired from active duty, after more than 43 years of service. The office of general auditor has been abolished and the duties of that position will be assumed by **V. L. Nelson,** assistant comptroller, with respect to general disbursements accounting matters, and by **R. D. Murray,** newly appointed auditor of expenditures, with respect to the accounting for expenditures in the New York area. Mr. Richards was born at Buchanan, Mich., on August 21, 1880, and attended the University of Michigan Department of Law, entering railroad service on July 1, 1905, as clerk to the superintendent motive power and rolling stock of

the Michigan Central (N. Y. C.) at Detroit, Mich. He subsequently served that road as clerk in the auditor's office, chief clerk to auditor of disbursements, assistant auditor of disbursements, auditor of disbursements, and assistant general auditor, all at Detroit. On August 1, 1931, Mr. Richards became assistant general auditor disbursements of the N.Y.C.; on October 1, 1942, auditor of disbursements; and on February 1, 1945, general auditor, at New York.

William R. Benjamin, assistant treasurer of the New York, New Haven & Hartford, has been elected treasurer, with headquarters as before at New Haven, Conn., succeeding **E. LeRoy Bartholomew,** who has retired after 48 years of service. **Frederick W. French,** assistant comptroller, has been appointed assistant treasurer.

Mr. Bartholomew was born at Branford, Conn., on August 6, 1880, and attended the local schools, leaving high school in his junior year to become time clerk at the Malleable Iron Fittings Company in Branford, where he remained until December, 1900. At that time he accepted a position in the electric department of the New York, New Haven & Hartford as paymaster and bookkeeper for two of its subsidiaries, the New York & Stamford and the Meriden Street Railway. In July, 1903, he entered the treasury department of the New Haven as cash clerk, being appointed cashier on July 8, 1930, assistant treasurer on December 1, 1938, and treasurer on November 1, 1943, of the New Haven and its various subsidiary companies.

L. W. Wing, assistant secretary and assistant treasurer of the Pere Marquette district of the Chesapeake & Ohio at Detroit, Mich., has been transferred to the Chesapeake district, with headquarters at Richmond, Va., succeeding **C. C. Michie,** who has retired from active service under the company's retirement plan, after almost 47 years of service. **Allan G. Leja** succeeds Mr. Wing at Detroit.

OPERATING

J. N. Landreth, superintendent of the Panhandle & Santa Fe at Amarillo, Tex., has been appointed assistant general manager of the Gulf, Colorado & Santa Fe, with headquarters at Galveston, Tex., succeeding **J. P. Cowley,** who has been appointed vice-president and general manager at that point.

T. Dawson Williams, general superintendent of the Louisville & Nashville at Louisville, Ky., has been appointed assistant superintendent of transportation at that point. The position formerly held by Mr. Williams has been abolished.

J. N. Abbott, assistant superintendent floating equipment of the Long Island and the New York Zone of the Pennsylvania, has been appointed superintendent floating equipment, with headquarters as before at Hoboken, N. J., succeeding **H. B. Hilliker,** who has been granted a leave of absence.

C. J. Thompson has been appointed superintendent of car service for the Alabama district of the St. Louis-San Francisco, at Birmingham, Ala.

L. R. Beals, car service agent of the Clinchfield at Erwin, Tenn., has been appointed car service and claim agent at that point.

Elwood Davis, trainmaster of the Terminal Railroad Association of St. Louis, has been promoted to supervisor of transportation at St. Louis, Mo., with system jurisdiction over assistant superintendent and trainmaster.

W. S. Gleason, trainmaster of the Allandale division of the Canadian National, at Gravenhurst, Ont., has been appointed assistant superintendent of the Capreol division at Capreol, Ont., succeeding **H. T. Walton,** who has been transferred to Hamilton, Ont., succeeding **W. K. Rogers,** who has retired on pension. **J. A. Lomas** succeeds Mr. Gleason at Gravenhurst.

John R. Meredith, commissary supervisor of the Erie, has been promoted to assistant superintendent of dining cars, with headquarters at Jersey City, N. J., succeeding **H. V. Ellis,** retired.

TRAFFIC

George W. Cleland, general agent of the Canadian Pacific at Seattle, Wash., will be transferred to Chicago on January 31, succeeding **Tom J. Wall,** who will retire on that date after 38 years of service with the C. P. at Chicago.

Henry L. Buckley, special representative on the general manager's staff of the Railway Express Agency at Chicago, has been appointed superintendent of the commercial division at that point. He succeeds **E. S. Buckmaster,** who has retired after more than 53 years of continuous service.

Herbert E. Wilson, Jr., district freight agent of the Southern at New York, has succeeded to the duties of **J. E. Riley,** district freight agent, who has resigned. **Robert L. Crawford, Jr.,** district freight agent at New York, succeeds to the duties of Mr. Wilson and is succeeded in turn by **Denver L. Lacey,** commercial agent at New York.

E. D. Hanes, coal traffic manager of the Virginian at Norfolk, Va., has retired after 36 years of service with this company. **Norman F. Cuthriell** has been appointed general coal freight agent in charge of solicitation of coal traffic, with headquarters at Norfolk. Mr. Hanes was born at Martinsburg, Mo., on August 27, 1879, and entered railroad service in 1896 in the auditing department of the Kansas City, Memphis & Birmingham (now St. Louis-San Francisco), subsequently serving with the Kansas City-Independent Rapid Transit, the Kansas City, Osceola & Southern (now St. L.-S. F.), the Kansas City, Nevada & Fort Smith (now Kansas City Southern), and the St. Joseph & Grand Island (now Union Pacific). He entered the service of the Virginian in 1912 and served successively as division claim agent, trainmaster, superintendent coal terminals, division superintendent, supervisor coal traffic, general coal freight agent and coal traffic manager, holding the latter position since March, 1944.

Claude H. Ethridge, general agent of the Atlantic Coast Line at Norfolk, Va., has been appointed assistant general freight agent at Rocky Mount, N. C. **Beaman Hobbs,** commercial agent at Fayetteville, N. C., has been appointed general agent at Norfolk.

R. L. Keefe has been appointed assistant general freight agent of the New York Central system, with headquarters at New York.

Warren P. Knowlden, assistant general baggage agent of the New York Central system at Buffalo, N. Y., has been appointed division passenger agent at Toledo, Ohio, succeeding **Edson C. Cook,** who retired on December 31, 1948, after 50 years of service with this system. **W. C. Bosse** has been appointed assistant general baggage agent at Buffalo, succeeding Mr. Knowlden.

H. J. Beaudry, assistant general freight agent of the Duluth, South Shore & Atlantic and the Mineral Range at Marquette, Mich., has been promoted to general freight agent, with headquarters at the same point. His former position has been abolished.

Clifford F. Tall, assistant general freight agent of the New York, Chicago & St. Louis, at St. Louis, Mo., has retired after 28 years of service with that company.

Paul A. Spiegelberg, assistant freight traffic manager of the Wabash at St. Louis, Mo., has been promoted to freight traffic manager in charge of sales and service at that point. He is succeeded by **George F. Harrigan,** general agent in the freight department at Pittsburgh, Pa. **Earl C. Perkins** has been transferred to Pittsburgh, replacing Mr. Harrigan. **John R. Hundley,** assistant general freight agent, has been promoted to general freight agent, with headquarters as before at St. Louis.

G. L. Harmon, commercial agent of the Missouri Pacific at Kansas City, Mo., has been appointed general agent at the railroad's new traffic office in Eugene, Ore.

C. L. Fuller, assistant traffic manager of the Minneapolis & St. Louis at Minneapolis, Minn., has been promoted to traffic manager at the same point. **O. C. Birnbrauer,** general eastern agent, with headquarters at New York, has been advanced to traffic manager at that point. **C. T. Callahan,** commercial agent at New York, has been made general agent there.

J. W. Tumlin, general freight agent—sales and service of the Norfolk Southern, with headquarters at Norfolk, Va., has been transferred to New York. **C. E. Lints,** special representative at Norfolk, has been promoted to assistant general freight agent. **C. F. M. Morris, Jr.,** succeeds Mr. Lints.

Fred C. Furry, assistant freight traffic manager of the Illinois Central at Chicago, has retired, after 49 years of service, because of ill health.

John A. Parsons has been appointed assistant to the coal traffic manager of the Louisville & Nashville, with headquarters at Louisville, Ky. **J. George Hettiger** has been made coal traffic agent at Detroit, Mich., succeeding **Charles G. Rodgers,** who has resigned.

J. H. Norwood, assistant general freight traffic manager of the New York Central system at New York, has been promoted to freight traffic manager at Cleveland, Ohio, succeeding **J. E. Anderson,** who has retired at his own request after 43 years of service. **F. E. Lewis,** who has been acting freight traffic manager at Cleveland, has been appointed assistant freight traffic manager. Under the pension regulations of the company, Mr. Lewis will retire on March 31, after more than 49 years of service.

C. S. Allen, division freight agent of the Norfolk Southern at Raleigh, N. C., has retired after 40 years of active service, the last 18 of which have been with the N. S.

Charles E. Case, director of industrial development for the Chicago & North Western at Chicago, has retired after 46 years of service with that railroad. He is succeeded by **A. O. Olson,** general industrial agent. Mr. Case was born on December 30, 1883, at Clinton, Iowa, and entered service with the North Western in 1901 as an extra telegrapher on the Iowa division. He subsequently served in the same capacity on the Duluth & Iron Range (now part of the Duluth, Missabe & Iron Range) and returned to the North Western in July, 1902, holding the position of telegrapher at Crystal Lake, Ill., Nelson and Clinton. He later served as dispatcher successively at Morrison, Ill., West Chicago, Chicago and Wheaton, and as agent at the latter point. He was transferred in 1915 to Aurora, Ill., and was appointed district agent at DeKalb, Ill., in May, 1920, and traveling agent at the same point the following October. He was made industrial agent at Chicago in July, 1930, and in July, 1935, was promoted to general industrial agent there. Mr. Case was further advanced to director of industrial development in July, 1947.

MECHANICAL

H. E. Hales, electrical engineer of the Central of Georgia, has been appointed superintendent motive power and **J. W. Mason,** master mechanic at Macon, Ga., has been appointed assistant superintendent motive power, both with headquarters at Savannah, Ga., replacing **J. W. Hawthorne,** who is now assistant chief of motive power and equipment of the Atlantic Coast Line. Mr. Hales entered the service of the C. of Ga. in 1942, after four years

H. E. Hales

with the Georgia Power Company. He served successively as telephone and telegraph draftsman, T. & T. maintainer, equipment engineer, and electrical engineer.

Mr. Mason entered the service of the C. of Ga. in 1923 as machinist specialist and was promoted to machinist in 1927, machinist supervisor in 1936 and erecting shop foreman in 1939. He became assistant master mechanic in 1943 and master mechanic in charge of the Macon shops in October, 1946.

Heading a series of appointments combining the departments of motive power and rolling stock engineering and maintenance, the New York Central has announced the appointment of **Frank K. Mitchell,** general superintendent, motive power and rolling stock, as manager of equipment at New York.

Paul W. Kiefer, chief engineer motive power and rolling stock, has been appointed chief engineer, equipment. **Frederick C. Ruskaup,** assistant general superintendent motive power and rolling stock, has been appointed general superintendent, equipment. **E. E. Everett,** assistant to general superintendent motive power and rolling stock, has been appointed assistant to manager of equipment. **A. D. Bingman,** assistant to general superintendent motive power and rolling stock, has been appointed assistant to general superintendent, locomotive. **J. A. Brossart,** assistant to general superintendent rolling stock, has been appointed assistant to general superintendent, car. **I. W. Martin,** assistant to general superintendent motive power, has been appointed assistant to general superintendent, locomotive. **F. Thomas,** assistant to general superintendent motive power, has been appointed assistant to general superintendent, Diesel and electric. **E. L. Johnson,** assistant chief engineer motive power and rolling stock, has been appointed assistant chief engineer, equipment. **C. H. Knowlton** and **G. W. Cox,** engineering assistants, have been appointed assistant engineers, equipment. **H. W. Faus,** engineer, motive power, has been appointed engineer, locomotive equipment. **E. P. Moses,** engineer rolling stock, has been appointed engineer, car equipment. **W. S. H. Hamilton,** equipment electrical engineer, has been appointed engineer, electrical equipment. **L. D. Hays,** air brake engineer, has been appointed engineer, brake equipment. All appointees will have headquarters at New York.

A. G. Greenseth mechanical superintendent of the Minneapolis, St. Paul & Sault Ste. Marie at Minneapolis, Minn., has been promoted to general mechanical superintendent, succeeding **B. N. Lewis,** whose retirement was reported in the *Railway Age* of September 11, 1948. **C. F. Guggisberg,** assistant mechanical superintendent, has replaced Mr. Greenseth and is succeeded by **D. L. Borchert. C. H. Nordquist** has been appointed mechanical engineer, with headquarters at Minneapolis.

E. Wynne, mechanical engineer, shop methods, of the Canadian National at Montreal, Que., has been appointed general superintendent on motive power and car equipment of the Atlantic region, with headquarters at Moncton, N. B., succeeding **D. V. Gonder,** who has been appointed assistant general manager at Winnipeg, Man. **George A. Howard,** general inspector, shop methods, at Montreal, succeeds Mr. Wynne, and **F. J. Harris,** designing draftsman, succeeds Mr. Howard. **Byron E. Taylor,** foreman of shops, has been appointed assistant superintendent of shops at Moncton, N. B., succeeding **D. Macdonald,** who has been promoted to superintendent of car equipment of the Atlantic region.

C. O. Butler, master mechanic of the Atlantic Coast Line at Rocky Mount, N. C., has been appointed superintendent motive power of the Western division, with headquarters at Fitzgerald, Ga., succeeding **C. A. White,** who has been transferred to the southern division at Waycross, Ga. **W. C. Stancil,** general foreman at Jacksonville, Fla., has been promoted to master mechanic

there, succeeding **L. H. Cooper,** who has been transferred to Rocky Mount.

W. R. Sugg, acting mechanical superintendent, western district, Missouri Pacific, at St. Louis, Mo., has been appointed mechanical superintendent of that district. He succeeds **G. T. Callender,** who has retired after 43 years of railroad service.

H. L. Haggard, master mechanic of the New York Central at Indianapolis, Ind., has been transferred to Mattoon, Ill., succeeding **E. J. Buckbee,** who has retired after 47 years of service. **H. R. Martin,** assistant master mechanic at Mattoon, has replaced Mr. Haggard. The position formerly held by Mr. Martin has been abolished.

P. J. McLean has been appointed assistant master mechanic of the Michigan Central (N.Y.C.) at St. Thomas, Ont., succeeding **William Parker,** retired.

William O. Cottingham, Sr., assistant road foreman of engines of the Western Maryland, has been appointed supervisor locomotive performance at Hagerstown, Md., succeeding **S. M. Roth,** deceased.

John A. Welsch, whose promotion to superintendent of equipment of the Illinois Central at Chicago, was reported in the *Railway Age* of December 18, 1948, was born on April 23, 1900, at Vicksburg, Miss. He attended school in that city and studied mechanical engineering in evening classes. Mr. Welsch entered I. C. service on October 19, 1916, as a machinist apprentice at Vicksburg, and, after completing his apprenticeship, worked as a machinist at Greenville, Miss., and at Vicksburg. In March, 1924, he became district air brake fore-

John A. Welsch

man at the latter point. He was made roundhouse foreman at McComb, Miss., in 1932, and appointed general foreman at Baton Rouge, La., in 1933. Mr. Welsch was transferred to Vicksburg in 1935 and to New Orleans, La., in 1938. He was advanced to master mechanic at Paducah, Ky., in 1941 and to shop superintendent at the same point in 1945. Mr. Welsch became superintendent of the car department at Chicago in September, 1947, and was serving in the latter position at the time of his recent promotion to superintendent of equipment.

John W. Hawthorne, whose appointment as assistant chief of motive power and equipment of the Atlantic Coast Line at Wilmington, N. C., was reported in the *Railway Age* of January 8, was born at Williamsport, Pa. Mr. Hawthorne was graduated from Purdue University in 1933 with a B.S. degree in mechanical engineering, specializing in locomotive and car design, and shortly after graduation became service representative for the New York Air

John W. Hawthorne

Brake Company at Watertown, N. Y., and Cleveland, Ohio. In 1940 he served for six months as acting air brake instructor of the Chesapeake & Ohio at Richmond, Va. He joined the Central of Georgia on November 1, 1943, as assistant superintendent motive power and was promoted to superintendent motive power at Savannah, Ga., on January 1, 1945, which position he held until he went to the Coast Line on January 1 of this year.

PURCHASES & STORES

R. E. Kelly, district storekeeper of the Chicago, Burlington & Quincy at West Burlington, Iowa, has been promoted to Diesel material supervisor, with headquarters at the same point. **W. R. Rieke** has replaced Mr. Kelly.

Lester R. Hume, assistant purchasing agent and storekeeper of the Ontario Northland, has been appointed purchasing agent, having jurisdiction over the purchasing and stores department, with headquarters at North Bay, Ont., succeeding **G. B. Alford,** retired.

F. W. Pettit, assistant to general purchasing agent of the Western Maryland, has been promoted to general purchasing agent, with headquarters as before at Baltimore, Md., succeeding **M. E. Towner,** retired. **J. S. Eaton,** lumber agent, purchasing department, has been appointed assistant to general purchasing agent, also at Baltimore, Md., succeeding Mr. Pettit.

C. R. Littler, assistant purchasing agent of the Elgin, Joliet & Eastern at Chicago, has retired after 40 years of service. **E. H. Olsen** has been appointed purchasing agent at Chicago. The position formerly held by Mr. Littler has been abolished.

W. B. Owens has been appointed purchasing agent of the Missouri Pacific Lines at Houston, Tex., succeeding **W. R. H. Mau,** whose promotion to assistant general purchasing agent at St. Louis, Mo., was reported in the *Railway Age* of January 1.

W. R. H. Mau, whose appointment as assistant general purchasing agent of the Missouri Pacific Lines at St. Louis, Mo., was reported in the *Railway Age* of January 1, was born on October 4, 1893 at Bloomington, Ill. He entered railway service in 1909 with the Chicago & Alton (now part of the Gulf, Mobile & Ohio), at Bloomington, in the general stores department, and subsequently joined the Chicago Great Western at Oelwein, Iowa, in the same de-

W. R. H. Mau

partment. In 1920 he became an inspector of material and supplies for the United States Railroad Administration, and in 1923 he was employed by the Southern Pacific at New York and later, at San Francisco, Cal. He entered M. P. service in July, 1927, as chief clerk to the general purchasing agent at Houston, Tex., advancing to purchasing agent at that point in September, 1933, which position he held prior to his appointment as assistant general purchasing agent at St. Louis.

ENGINEERING & SIGNALING

T. C. Seifert, assistant signal engineer of the Chicago, Burlington & Quincy,

Lines East, at Chicago, has retired. The position he formerly held has been abolished.

A. H. Grothmann, secretary of the Freight Loading and Container Section of the Association of American Railroads at Chicago, has been appointed secretary of the Communications Section of the A.A.R., with headquarters at New York. He succeeds **W. A. Fairbanks,** whose retirement was reported in the *Railway Age* of October 30, 1948.

S. E. Armstrong, who retired on December 31, 1948, as engineer maintenance of way of the New York Central system at New York, as reported in the *Railway Age* of January 8, was born in 1880 at Somerville, Mass. Mr. Armstrong was graduated from the Massachusetts Institute of Technology and began his 45 years of service with the New York Central as a chairman in 1904 at Buffalo, N. Y. He was appointed assistant supervisor of track at

S. E. Armstrong

Rochester, N. Y., in 1905; second assistant engineer in 1906; assistant engineer in 1913; and supervisor of track in 1914. In 1920 Mr. Armstrong was appointed Pennsylvania division engineer at Jersey Shore, Pa., transferring to the River division at Weehawken, N. J., in 1926. One year later he became engineer of standards at New York and in 1940 was appointed engineer maintenance of way—system.

E. A. Vail, chief engineer of the Bamberger, at Salt Lake City, Utah, has retired after more than 56 years of service with the road. He is succeeded by **Eugene O. Humphrey,** engineer maintenance of way. Mr. Vail will continue with the railroad as engineering consultant.

G. R. Burkhardt, chief draftsman in the engineering department of the Chicago, Burlington & Quincy at Chicago, has been appointed engineer of standards at that point, succeeding **C. W. Breed,** whose retirement was reported in the *Railway Age* of January 1.

H. W. Johnson, assistant engineer of the Southern at Cincinnati, Ohio, has been appointed assistant chief engineer of the Chicago Great Western, with headquarters at Chicago.

F. E. Austerman, assistant engineer in the office of the chief engineer of the Chicago, Milwaukee, St. Paul & Pacific, has resigned to become acting assistant chief engineer of the Chicago Union Station at Chicago. He succeeds **C. E. Cox,** assistant chief engineer, whose retirement was reported in the *Railway Age* of January 8.

G. A. Honey has been appointed assistant general manager, maintenance of way, for the Alabama, Tennessee & Northern at York, Ala. **Frank Jones** has been appointed superintendent of bridges and buildings at York.

OBITUARY

S. M. Roth, supervisor locomotive performance of the Western Maryland at Hagerstown, Md., died on January 1 at the age of 54.

T. A. Graham, late general auditor of the Chicago, Rock Island & Pacific at Chicago, whose death was reported in the *Railway Age* of January 1, was born at Philadelphia, Pa., on May 11, 1893, and attended the London Collegiate Institute and the Westervelt Business College at London, Ont. He entered railway service in 1914 as a clerk in the accounting department of the Rock Island at Chicago, and, with the exception of military service from September, 1917, to January, 1919, remained continuously in the service of that company. In 1922 he was promoted to accountant, and in 1931 to chief clerk to the general auditor. Mr. Graham became assistant general auditor in 1941 and was further promoted to general auditor in January, 1948.

Harry G. Hostetter, superintendent of the Middle division of the Pennsylvania at Altoona, Pa., whose death on December 24 was reported in the *Railway Age* of January 8, was born at Bachmanville, Pa., in 1895. Mr. Hostetter entered railroad service in 1911 as a telegraph operator at Colebrook, Pa., for the Cornwall & Lebanon (now P.R.R.), subsequently serving in various other capacities. He was named passenger trainmaster for the Long Island in 1936 and held that position until 1941, when he became superintendent of the Delmarva division at Cape Charles, Va. The following year he was transferred to Altoona, where he remained until his death.

John B. Wood, treasurer of the Central Vermont at St. Albans, Vt., died on January 4 at his home in that city. Mr. Wood was born at Washington, D. C., on February 11, 1891, and entered railroad service in 1906 as messenger and clerk in the office of the auditor of freight revenues of the Southern. He subsequently served with the Union Loan & Trust Co. at Washington, the Washington Terminal Co. and the Peninsular & Occidental Steamship Co. at Havana, Cuba. Mr. Wood joined the Central Vermont in 1916 as secretary and chief clerk to the president. After service with the American Expeditionary Forces during World War I, he returned to the C. V. as assistant to comptroller in 1919, serving as treasurer and clerk from 1921 to 1927. Since 1927 he had served as treasurer for the receivers and for the reorganized company.

Eugene S. Shreve, general attorney of the Lehigh Valley at New York, died on January 11 in Beekman-Downtown hospital, at the age of 53.

C. L. Emerson, who retired in 1943 as division master mechanic of the Chicago, Milwaukee, St. Paul & Pacific, at Chicago, died on January 2 in the West Suburban Hospital at Oak Park, Ill.

Thomas M. Milligan, former general superintendent of the Elgin, Joliet & Eastern at Joliet, Ill., died on January 5 at his home in that city, following a heart attack. Mr. Milligan, who was 62, had been given a leave of absence on April 16, 1948, because of ill health.

Benjamin F. Parsons, vice-president of the Chicago Great Western, at Chicago, died on January 4, while en route to Washington, D. C., aboard a Baltimore & Ohio train. He was born in 1881 at National City, Cal., and educated in the public schools. He entered railroad service on January 1, 1901, as a stenographer in the traffic department of the Chicago & Alton (now part of the Gulf, Mobile & Ohio) at Jacksonville, Ill., and transferred to Marshall, Mo., in July, 1902, and later to Chicago. He was made a tariff clerk in January, 1906, at Chicago and in April, 1910, joined the C.G.W. in the same capacity. He was advanced to chief clerk in the general freight office in September, 1910, and to assistant general freight agent in 1917. He served in the latter position until April, 1924, except for the period of federal control, when he was assistant to the federal manager. He was next promoted successively to general freight agent and to traffic manager. Mr. Parsons was appointed assistant to the trustees in August, 1940, and to assistant to the president and secretary in February, 1941, becoming vice-president and secretary in January, 1943. He relinquished the title of secretary in December, 1948, but continued as vice-president until his death.

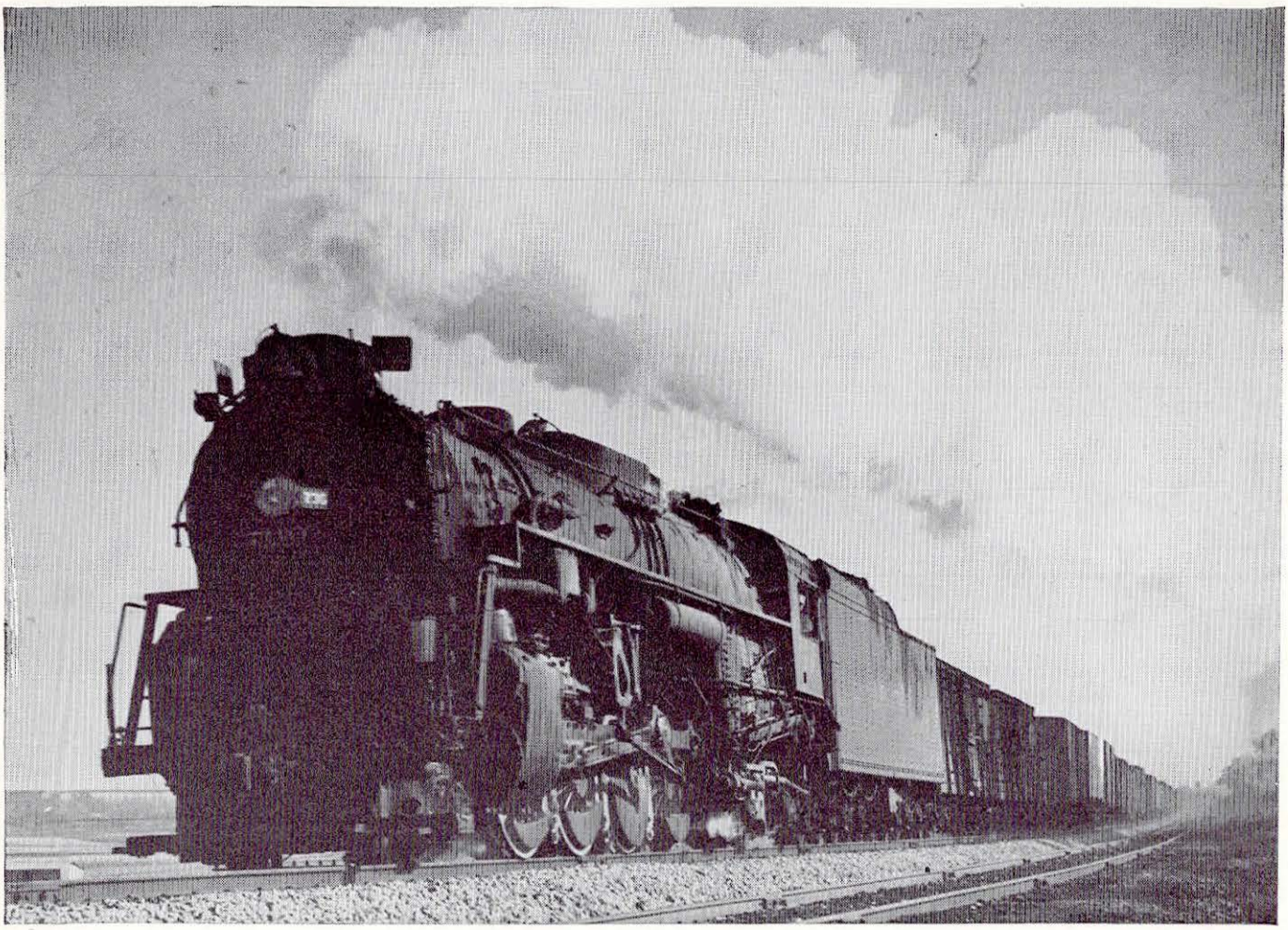
A. J. Clancy, assistant to the vice-president and general manager of the Grand Trunk Western at Detroit, Mich., died of a heart attack in that city on January 10.

there is a place

WE FIRMLY BELIEVE that for a long, long time, there will continue to be a demand for steam locomotives.

Therefore, while we *are* building diesel-electrics for the switching field — and while we have nearly completed experimental work on the free-piston gas generator for locomotive use — we will continue to build a complete line of steam locomotives.

We will continue to explore all possible ways of improving such locomotives. We will continue to build them with the traditional fineness of design and manufacture that is responsible for Lima's world-wide reputation. And we will continue to believe that there is a place for these locomotives — for such modern power as the 2-8-4's we are now building, as our fifth order for the Nickel Plate.



LIMA HAMILTON CORPORATION

DIVISIONS: *Lima, Ohio*—Lima Locomotive Works Division; Lima Shovel and Crane Division. *Hamilton, Ohio*—Hooven, Owens, Rentschler Co.; Niles Tool Works Co. *Middletown, Ohio* — The United Welding Co.

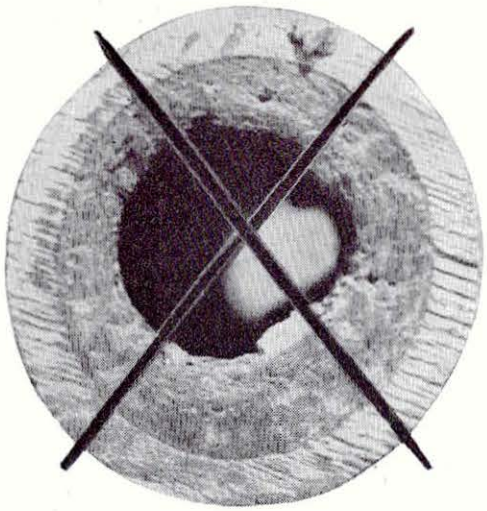
PRINCIPAL PRODUCTS: Locomotives; Cranes and shovels; Niles heavy machine tools; Hamilton diesel and steam engines; Hamilton heavy metal stamping presses; Hamilton-Kruse automatic can-making machinery; Special heavy machinery; Heavy iron castings; Weldments.

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF NOVEMBER AND ELEVEN MONTHS OF CALENDAR YEAR 1948

Name of road		Av. mileage operated during period	Operating revenues: Freight	Passenger	Total (inc. misc.)	Operating Expenses: Maintenance of: Way and structures	Equipment	Traffic	Transportation	Total	Operating ratio	Net from railway operation	Railway tax accruals	Net railway operating income: 1948	1947
Akron, Canton & Youngstown	Nov.	171	470,453	57	491,281	83,420	45,295	33,690	138,218	325,772	66.3	165,509	61,338	80,372	81,177
	11 mos.	171	5,183,855	819	5,405,381	796,400	515,607	295,349	1,495,346	3,364,595	62.2	2,040,786	769,949	1,036,213	757,672
Atchison, Topeka & Santa Fe System	Nov.	13,080	38,293,024	4,188,221	46,421,217	7,169,841	8,309,219	941,131	15,985,871	34,167,771	73.60	12,253,446	5,927,360	6,085,933	4,483,239
	11 mos.	13,081	390,212,808	48,786,448	480,641,928	71,822,489	83,088,748	10,447,614	167,826,094	352,450,430	73.33	128,191,498	63,315,689	63,624,938	47,881,583
Atlanta & St. Andrews Bay	Nov.	82	210,608	1,959	216,962	33,712	18,724	6,252	49,921	118,116	54.4	98,846	37,493	42,275	34,008
	11 mos.	82	2,111,003	18,901	2,207,746	273,743	175,250	68,883	558,027	1,194,429	54.1	1,013,317	362,803	435,665	279,172
Atlanta & West Point	Nov.	93	292,978	43,875	381,455	41,731	52,839	14,984	190,725	323,674	84.9	57,781	32,194	5,403	—7,432
	11 mos.	93	3,142,686	562,493	4,203,232	460,194	558,104	152,302	2,049,086	3,463,596	82.4	739,636	359,627	164,578	—48
Western of Alabama	Nov.	133	300,894	45,216	380,750	49,008	64,094	15,388	155,112	305,367	80.2	75,383	39,613	30,097	40,000
	11 mos.	133	3,186,345	554,998	4,131,598	438,199	643,661	151,827	1,766,019	3,242,564	78 5	889,034	469,715	407,495	240,549
Atlantic Coast Line	Nov.	5,569	8,848,030	1,323,254	10,865,525	2,364,384	2,272,175	316,403	4,794,332	10,271,854	94.5	593,671	300,000	139,704	375,439
	11 mos.	5,571	97,423,137	18,021,814	124,512,711	23,691,853	22,176,165	3,244,927	53,264,238	107,940,567	86.7	16,572,144	9,850,000	4,257,121	1,573,711
Charleston & Western Carolina	Nov.	343	425,216	8,199	442,800	43,497	77,129	14,933	174,349	323,571	73.1	119,229	35,000	75,663	25,017
	11 mos.	343	4,506,949	55,664	4,687,793	795,895	833,606	158,947	1,874,796	3,783,837	80.7	903,956	355,000	434,918	246,912
Baltimore & Ohio	Nov.	6,192	29,742,569	1,921,195	33,475,231	4,190,669	7,123,142	798,652	14,200,749	27,773,897	83.0	5,701,334	2,876,403	2,807,321	2,081,392
	11 mos.	6,192	326,184,601	22,257,993	368,936,646	45,296,834	75,497,464	7,923,173	153,501,345	297,404,825	80.6	71,531,821	28,587,554	40,712,772	26,357,708
Staten Island Rapid Transit	Nov.	29	221,907	59,547	288,590	55,718	35,344	1,927	137,028	264,025	91.5	24,565	35,663	—32,644	—62,702
	11 mos.	29	2,106,044	1,049,027	3,310,829	622,325	454,407	19,665	1,692,281	3,110,836	94.0	199,993	417,047	—445,096	—570,015
Bangor & Aroostook	Nov.	602	1,381,873	49,971	1,477,354	308,089	144,763	13,160	337,106	847,725	57.4	629,629	317,869	324,848	208,488
	11 mos.	602	12,701,167	528,508	13,640,519	2,683,153	2,119,004	98,564	3,653,219	9,044,106	66.3	4,596,413	2,218,833	2,517,513	1,393,638
Bessemer & Lake Erie	Nov.	214	2,447,441	1,272	2,463,789	157,586	587,085	19,855	531,430	1,377,713	55.9	1,086,076	547,592	774,224	820,478
	11 mos.	214	24,921,122	16,587	25,117,281	1,822,692	6,453,679	209,057	5,382,698	14,660,311	58.4	10,456,970	5,685,571	7,648,818	7,560,283
Boston & Maine	Nov.	1,757	6,224,715	1,168,584	8,063,051	1,160,131	1,269,127	104,456	3,210,535	6,048,448	75.0	2,014,603	878,098	809,862	565,820
	11 mos.	1,757	64,958,930	13,663,736	86,376,686	14,099,159	12,921,165	1,142,120	35,423,609	66,953,279	77.5	19,423,407	8,115,609	7,277,635	5,289,400
Burlington-Rock Island	Nov.	228	397,872	55,626	478,411	56,499	51,863	4,753	185,902	319,228	66.7	159,183	8,164	79,891	20,532
	11 mos.	228	3,460,997	595,361	4,290,983	552,816	442,775	51,974	1,729,860	2,996,957	69.8	1,294,026	108,304	611,337	157,083
Cambria & Indiana	Nov.	35	135,078	.....	135,137	11,170	59,654	773	25,236	104,635	77.42	30,502	75,366	66,647	35,278
	11 mos.	35	1,404,628	.....	1,405,188	127,213	907,520	8,184	258,633	1,392,485	99.09	12,703	696,347	593,286	443,686
Canadian Pacific Lines in Maine	Nov.	234	299,547	31,605	355,753	102,470	69,526	6,712	186,284	376,652	105.9	—20,899	22,491	—105,751	—83,744
	11 mos.	234	4,428,337	406,690	5,100,578	997,540	782,694	79,115	2,099,904	4,098,639	80.4	1,001,939	253,095	9,837	—113,120
Canadian Pacific Lines in Vermont	Nov.	90	170,100	18,350	205,518	119,087	42,295	4,803	155,851	329,116	160.1	—123,598	12,778	—182,667	—97,879
	11 mos.	90	1,808,316	196,576	2,208,672	562,023	399,992	56,698	1,689,048	2,785,064	126.1	—576,392	146,596	—1,220,209	—1,196,412
Central of Georgia	Nov.	1,815	2,628,559	236,239	3,111,286	457,826	520,324	106,909	1,499,458	2,754,931	88.5	356,355	177,716	138,914	—163,515
	11 mos.	1,815	28,975,689	2,770,415	34,604,451	5,374,518	5,598,601	1,129,773	16,181,830	30,107,746	87.0	4,496,705	2,443,978	1,758,521	—638,544
Central of New Jersey	Nov.	417	2,723,873	515,766	3,441,080	595,549	653,737	56,079	1,675,046	3,167,691	92.1	273,389	385,064	—417,174	—526,382
	11 mos.	417	30,601,303	5,964,832	39,201,232	6,129,259	6,481,616	598,177	19,223,610	34,488,579	88.0	4,712,653	4,373,248	—3,078,792	—4,151,885
Central of Pennsylvania	Nov.	213	1,653,581	15,640	1,709,116	159,987	312,742	23,186	523,428	1,062,408	62.2	646,708	56,847	868,503	731,114
	11 mos.	213	18,588,051	195,055	19,218,891	1,700,532	3,399,018	259,440	5,923,482	11,750,374	61.1	7,468,517	761,470	9,626,870	7,349,221
Central Vermont	Nov.	422	829,000	59,000	952,000	116,842	192,890	14,389	374,520	738,407	77.6	213,593	43,598	124,223	46,832
	11 mos.	422	8,266,000	718,000	9,603,000	1,511,280	1,645,557	154,450	4,018,342	7,745,474	80.7	1,857,526	495,472	776,650	349,770
Chesapeake & Ohio	Nov.	5,098	25,876,569	943,893	28,072,879	3,804,846	5,505,998	578,161	10,362,165	21,556,264	76.8	6,516,615	3,217,492	3,749,989	3,324,608
	11 mos.	5,076	284,146,440	10,446,580	308,558,013	44,618,391	56,917,084	7,435,545	109,655,720	232,499,737	75.4	76,058,276	37,620,073	43,551,354	40,484,341
Chicago & Eastern Illinois	Nov.	909	2,273,887	318,080	2,870,752	277,757	535,696	113,317	1,157,728	2,290,155	79.8	580,597	227,000	232,846	103,147
	11 mos.	909	23,622,378	3,403,705	29,813,895	3,769,021	5,570,639	1,100,194	12,483,221	24,402,357	81.8	5,411,538	2,101,500	1,991,270	419,493
Chicago & Illinois Midland	Nov.	131	877,676	805	898,438	104,520	142,673	22,808	212,389	516,348	57.5	382,090	143,200	238,020	177,197
	11 mos.	131	8,695,589	9,891	8,921,879	1,005,892	1,426,784	269,282	2,149,143	5,220,257	58.5	3,701,622	1,529,690	2,164,919	1,435,009
Chicago & North Western	Nov.	8,076	13,226,563	1,913,097	16,823,117	2,528,776	3,160,818	315,761	7,447,807	14,260,977	84.8	2,562,140	1,435,496	822,296	611,788
	11 mos.	8,060	136,830,858	23,516,974	179,213,875	27,753,141	32,677,184	3,372,361	79,447,812	151,947,475	84.8	27,266,400	14,119,098	9,401,647	7,300,343
Chicago, Burlington & Quincy	Nov.	8,705	17,590,430	1,469,306	21,029,323	3,228,158	2,865,951	384,015	7,069,906	14,235,968	67.7	6,793,355	3,194,918	3,153,230	2,225,620
	11 mos.	8,823	183,357,993	18,418,843	221,542,422	34,120,337	31,800,540	4,306,808	76,064,053	153,796,384	69.4	67,746,038	32,661,881	30,640,087	28,677,869
Chicago Great Western	Nov.	1,500	2,731,927	42,599	2,992,516	507,347	373,773	111,193	1,190,628	2,284,896	76.4	707,620	256,039	265,749	324,915
	11 mos.	1,500	29,508,901	607,826	32,438,095	4,734,155	3,720,216	1,096,596	13,034,479	23,648,134	72.9	8,789,961	3,196,686	3,354,558	2,082,420
Chicago, Indianapolis & Louisville	Nov.	541	1,459,787	108,294	1,650,347	312,232	295,117	84,984	642,457	1,450,309	87.3	200,038	77,746	39,642	246,653
	11 mos.	541	15,288,838	1,117,062	17,504,090	2,931,999	2,446,246	872,241	6,740,238	14,018,644	80.1	3,485,446	841,184	1,537,261	270,883
Chicago, Milwaukee St. Paul & Pacific	Nov.	10,671	18,045,274	1,659,266	21,758,859	3,535,927	4,054,742	421,567	9,283,688	18,276,521	84.0	3,482,338	1,946,000	1,123,968	1,312,087
	11 mos.	10,671	191,914,170	19,609,737	234,048,215	36,285,138	40,891,620	4,405,818	100,292,171	192,189,910	82.1	41,858,305	19,647,000	14,660,152	14,418,392
Chicago, Rock Island & Pacific	Nov.	7,643	13,059,847	1,948,877	16,213,060	2,192,585	2,292,811	456,631	6,194,504	11,843,189	73.0	4,369,871	2,005,268	1,781,930	1,429,340
	11 mos.	7,646	146,287,902	21,026,334	181,023,914	22,844,223	26,963,221	4,866,134	69,349,578	132,001,910	72.9	49,022,004	20,899,804	19,761,115	19,031,385
Chicago, St. Paul, Minn. & Omaha	Nov.	1,617	2,480,890	170,117	2,880,058	358,855	454,604	63,145	1,375,100	2,374,784	82.5	505,274	189,235	220,233	106,687
	11 mos.	1,617	26,231,839	2,400,912	31,179,993	4,506,652	4,749,980	625,384	14,807,788	25,999,923	83.4	5,180,070	2,023,298	1,495,705	1,095,546
Clinchfield	Nov.	317	1,623,112	4,465	1,638,279	184,022	290,588	34,493	468,955	1,008,920	61.6	629,359	166,508	562,710	539,789
	11 mos.	317	17,641,801	62,025	17,844,463	1,578,553	3,064,688	354,286	5,347,423	10,674,407	59.8	7,170,056	1,791,045	6,411,658	6,142,374
Colorado & Southern	Nov.	745	951,797	87,529	1,153,513	161,954	195,018	25,919	526,868	959,138	83.2	194,375	114,317	27,076	157,122
	11 mos.	745	10,509,653	960,854	12,588,213	1,954,828	2,139,463	262,373	5,339,280	10,257,845	81.5	2,330,368	1,324,617	672,626	553,952
Ft. Worth & Denver City	Nov.	902	1,375,232	128,001	1,609,167	172,328	206,630	40,454	593,555	1,086,279	67.5	522,888	164,355	300,221	131,173
	11 mos.	902	12,319,445	1,600,005	15,049,471	2,132,092	2,000,009	430,971	5,500,925	10,867,170	72.2	4,182,301	1,411,333	2,135,778	1,877,079

Table continued on next left-hand page.



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REVENUES AND EXPENSES OF RAILWAYS

MONTH OF NOVEMBER AND ELEVEN MONTHS OF CALENDAR YEAR 1948

Name of road		Av. mileage operated during period	Operating revenues: Freight	Operating revenues: Passenger	Operating revenues: Total (inc. misc.)	Operating Expenses: Maintenance of: Way and structures	Operating Expenses: Maintenance of: Equipment	Operating Expenses: Traffic	Operating Expenses: Transportation	Operating Expenses: Total	Operating ratio	Net from railway operation	Railway tax accruals	Net railway operating income: 1948	Net railway operating income: 1947
Colorado & Wyoming	Nov.	41	145,358	.....	226,885	15,818	25,266	380	84,784	134,114	59.1	92,771	48,685	43,518	41,563
	11 mos.	41	1,548,369	.....	2,471,106	141,553	244,650	9,742	942,240	1,408,825	57.0	1,062,281	457,476	599,952	374,337
Columbus & Greenville	Nov.	168	163,484	—10	171,225	42,498	36,531	4,784	57,887	160,908	94.0	10,317	10,934	787	43,120
	11 mos.	168	1,715,563	4,938	1,814,316	440,705	324,661	53,064	560,519	1,564,538	86.2	249,778	157,350	130,426	—53,860
Delaware & Hudson	Nov.	794	4,727,637	192,231	5,038,041	577,064	1,182,569	69,496	1,952,000	3,957,863	78.6	1,080,178	543,462	558,952	469,744
	11 mos.	794	51,694,114	2,089,400	55,301,148	6,777,036	11,936,974	799,703	20,968,749	42,389,684	76.7	12,911,464	6,349,226	6,796,768	5,477,146
Delaware, Lackawanna & Western	Nov.	969	5,873,724	865,250	7,358,016	698,051	1,090,599	144,618	3,176,435	5,350,450	72.7	2,007,566	920,129	1,058,111	743,090
	11 mos.	972	67,313,650	9,803,836	83,867,569	9,985,394	12,880,037	1,562,371	36,317,468	63,299,894	75.5	20,567,675	9,667,695	10,236,708	7,453,525
Denver & Rio Grande Western	Nov.	2,443	5,530,684	197,424	5,987,336	627,174	1,198,427	180,344	2,191,350	4,452,890	74.4	1,534,446	663,100	864,178	823,451
	11 mos.	2,443	57,351,030	2,758,498	62,706,692	7,442,483	10,197,933	1,582,350	22,324,914	44,361,043	70.7	18,345,649	7,083,603	11,338,800	7,452,942
Detroit & Mackinac	Nov.	230	163,946	2,946	177,120	78,543	22,070	1,632	42,998	153,756	86.8	23,364	8,459	10,944	9,947
	11 mos.	230	1,890,081	13,527	2,029,389	412,543	235,856	17,026	406,350	1,158,423	57.1	870,966	328,391	507,900	368,268
Detroit & Toledo Shore Line	Nov.	50	528,081	.....	1530,279	68,643	39,674	12,464	160,555	292,284	55.1	237,995	65,713	84,666	76,355
	11 mos.	50	5,956,981	.....	5,990,069	585,587	462,570	131,878	1,794,238	3,087,946	51.6	2,902,123	810,676	979,984	765,704
Detroit, Toledo & Ironton	Nov.	464	1,442,862	681	1,479,019	127,776	215,407	23,212	338,587	743,455	50.3	735,564	283,818	414,326	228,704
	11 mos.	464	13,873,845	8,752	14,450,530	1,567,712	2,609,129	235,728	3,551,157	8,353,236	57.8	6,097,294	2,292,616	3,403,170	2,715,621
Duluth, Missabe & Iron Range	Nov.	578	3,491,511	2,857	4,034,952	508,345	500,517	7,857	1,618,515	2,713,995	67.3	1,320,957	707,116	631,030	36,854
	11 mos.	572	39,212,598	29,894	45,828,250	5,757,140	5,158,824	80,850	12,637,801	24,349,196	53.1	21,479,054	10,467,734	11,042,325	9,710,846
Duluth, Winnipeg & Pacific	Nov.	175	310,000	1,200	317,600	80,811	47,023	3,724	153,142	290,579	91.5	27,021	25,495	—23,981	—4,911
	11 mos.	175	3,964,000	16,900	4,039,700	798,076	519,158	39,431	1,700,091	3,120,760	77.3	918,940	318,550	128,210	177,675
Elgin, Joliet & Eastern	Nov.	238	3,290,933	30	3,948,763	296,972	573,735	24,207	1,346,574	2,366,813	59.9	1,581,950	612,791	733,605	428,391
	11 mos.	322	35,264,663	81	42,236,796	2,987,902	5,889,459	288,835	15,033,610	25,328,411	60.0	16,910,385	6,519,099	7,306,716	5,015,692
Erie	Nov.	2,229	12,875,141	664,437	14,634,555	1,421,494	2,411,330	320,976	5,878,873	10,709,171	73.2	3,925,384	1,524,779	1,890,298	1,665,214
	11 mos.	2,229	142,942,717	7,522,587	161,262,517	18,747,221	25,328,474	3,333,575	65,101,404	119,562,318	74.1	41,700,199	17,678,540	18,599,633	10,649,602
Florida East Coast	Nov.	575	1,549,479	487,594	2,235,220	339,161	416,855	67,377	868,066	1,852,839	82.9	382,381	163,861	142,404	—53,913
	11 mos.	575	17,107,718	6,538,547	26,010,819	4,138,351	4,606,986	708,445	10,500,432	21,832,924	83.9	4,177,895	1,574,193	1,545,290	144,967
Georgia Railroad	Nov.	326	685,778	32,000	761,828	105,565	108,886	29,749	359,693	633,849	83.2	127,979	35,955	103,751	71,966
	11 mos.	326	7,242,560	369,709	8,125,609	1,057,184	1,154,379	303,097	3,883,466	6,700,698	82.5	1,424,911	384,723	1,186,418	601,408
Georgia & Florida	Nov.	408	213,190	1,922	220,882	72,802	31,536	14,080	112,763	241,132	109.2	—20,250	15,337	—53,088	—24,936
	11 mos.	408	2,495,594	21,852	2,581,854	671,108	366,875	144,197	1,109,911	2,386,984	92.5	194,870	157,894	—128,999	—165,261
Grand Trunk Western	Nov.	972	3,802,000	186,000	4,280,000	698,453	746,395	61,106	1,963,575	3,638,854	85.0	641,146	226,463	307,251	546,902
	11 mos.	972	42,120,000	2,057,000	47,341,000	7,323,416	7,982,891	657,230	20,890,738	38,579,182	81.5	8,761,818	2,446,138	4,850,128	3,380,107
Canadian Nat'l Lines in New Engl.	Nov.	172	175,000	6,000	227,000	72,404	75,502	2,934	111,184	276,792	121.9	49,792	21,648	106,461	105,836
	11 mos.	172	1,918,000	108,300	2,214,000	774,646	459,095	31,140	1,385,239	2,745,867	124.0	531,867	238,119	1,142,678	1,052,803
Great Northern	Nov.	8,336	17,360,532	947,824	19,608,928	2,975,914	3,152,711	334,652	6,956,811	14,007,543	71.4	5,601,385	2,737,472	2,688,301	2,544,504
	11 mos.	8,333	173,021,949	11,378,229	199,802,441	34,193,772	31,224,452	3,606,434	72,428,758	148,099,175	74.1	51,702,266	21,944,260	27,029,210	22,625,761
Green Bay & Western	Nov.	224	317,371	33	326,021	—30,468	44,942	16,991	92,167	135,106	41.4	190,915	74,685	99,501	93,077
	11 mos.	224	3,324,497	350	3,403,510	789,148	372,418	197,492	1,012,205	2,527,805	74.3	875,705	395,354	289,227	186,070
Gulf, Mobile & Ohio	Nov.	2,905	5,857,514	472,130	6,794,424	1,328,201	924,226	239,725	2,252,576	5,064,153	73.8	1,730,271	671,891	691,815	435,194
	11 mos.	2,906	63,336,016	5,715,814	74,042,728	12,702,199	12,063,255	2,462,315	23,662,576	54,391,756	73.5	19,650,972	7,636,368	8,471,588	6,235,165
Illinois Central	Nov.	6,550	18,964,629	2,118,514	23,276,210	4,033,186	4,093,134	461,406	8,436,043	17,981,261	77.3	5,294,949	2,656,505	2,255,926	1,311,004
	11 mos.	6,564	196,302,297	23,511,909	244,902,649	40,743,483	41,784,889	4,728,848	88,216,736	185,617,595	75.8	59,285,054	29,645,227	26,694,978	21,799,445
Illinois Terminal	Nov.	474	956,471	121,359	1,191,755	176,138	123,968	35,748	419,870	803,017	67.38	388,738	179,333	168,801	157,870
	11 mos.	474	9,817,580	1,340,707	12,334,893	1,750,538	1,492,258	333,087	4,402,485	8,411,348	68.19	3,923,545	1,698,347	1,866,677	1,652,919
Kansas City Southern	Nov.	890	3,219,146	70,189	3,604,748	305,397	429,705	95,225	974,124	1,933,643	53.6	1,671,105	631,000	837,607	774,998
	11 mos.	890	34,037,525	1,046,132	37,924,962	3,093,716	4,426,194	988,338	10,426,897	20,253,810	53.4	17,671,152	6,714,000	9,353,515	6,788,485
Kansas, Oklahoma & Gulf	Nov.	328	537,618	782	542,084	57,166	39,412	17,290	134,421	266,118	49.1	275,966	121,538	118,896	90,441
	11 mos.	328	5,283,082	9,946	5,336,615	612,931	406,528	179,800	1,432,774	2,825,626	52.9	2,510,989	1,075,144	1,016,143	898,112
Lake Superior & Ishpeming	Nov.	156	261,712	48	322,176	64,799	46,036	1,582	98,643	220,003	68.3	102,173	24,141	83,429	71,763
	11 mos.	156	2,946,570	699	3,672,254	561,825	498,265	17,555	912,141	2,095,921	57.1	1,576,333	766,581	878,806	997,427
Lehigh & Hudson River	Nov.	96	292,579	.....	293,321	46,120	142,750	8,789	100,595	208,224	71.0	85,097	35,413	30,790	23,030
	11 mos.	96	3,114,572	.....	3,124,587	485,986	423,127	89,800	1,110,504	2,203,532	70.5	921,055	359,641	300,142	207,366
Lehigh & New England	Nov.	193	775,469	.....	783,130	69,902	112,574	10,327	208,795	433,962	55.4	349,168	154,805	208,144	158,835
	11 mos.	193	8,310,213	.....	8,394,871	920,497	1,172,368	120,191	2,543,712	5,096,754	60.7	3,298,117	1,484,913	1,936,271	1,418,246
Lehigh Valley	Nov.	1,252	6,272,420	354,971	6,931,621	967,637	973,430	145,812	2,856,249	5,204,768	75.1	1,726,853	395,182	1,179,094	79,815
	11 mos.	1,252	66,033,428	3,898,250	73,601,961	10,125,133	11,337,360	1,532,382	32,473,772	58,220,912	79.1	15,381,049	4,562,825	8,896,524	4,296,539
Louisiana & Arkansas	Nov.	756	1,622,330	59,580	1,756,638	234,086	177,417	49,199	579,970	1,087,322	61.9	669,316	258,882	246,440	226,663
	11 mos.	756	17,433,378	631,405	18,768,369	2,083,131	1,738,214	529,561	6,005,619	10,876,065	57.9	7,892,304	3,121,367	3,292,544	2,208,494
Louisville & Nashville	Nov.	4,759	15,252,298	1,154,905	17,332,506	2,274,172	3,578,577	297,868	7,054,985	13,849,286	79.9	3,483,220	2,290,211	2,069,843	1,488,151
	11 mos.	4,759	165,383,733	14,223,529	190,454,622	26,309,810	39,302,534	3,214,483	79,891,874	155,373,318	81.6	35,081,304	23,489,129	19,670,849	14,081,317

Table continued on next left-hand page.

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HSGI *individually cast* Valve Snap Rings produce a more perfect seal, wear long and uniformly because they are perfectly round when compressed within the valve chamber bushing. Being slightly out of round when cast, they assume a true circular shape when the gaps are closed under tension. Another superiority is their greater hardness and finer grain structure on all four surfaces . . . the result of improved casting methods.

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BRIGGS & STRATTON CORPORATION
Milwaukee 1, Wisconsin, U. S. A.

General News

Freight Bill Reaudit

(*Continued from page* 48)

"accelerated" audit. The total of additional overpayments discovered in the reaudit was put at $2,154,937. From that the subcommittee proceeded to build up its estimate of the potential total recovery. It said:

"On the basis of these figures alone, projected over the total accelerated audit period, the recovery which will be made through complete reaudit will equal approximately $250,000,000. It should be noted, however, that the reaudit up to November 13 had not encompassed any substantial development of transit, ground storage or cancelled tonnage information or the audit of other vouchers for which development is required. Since it seems clear from the testimony before the subcommittee that the great bulk of the overpayments undetected on the accelerated audit were in these last items, based on our very limited information to date the total recoveries should exceed the $350,000,000 estimated by the [August 7, 1948] report but the reaudit has not yet progressed far enough to definitely determine the accuracy of this figure."

Appraising the progress of the reaudit, the subcommittee said that the number of vouchers handled up to November 13, 1948, was "disappointingly small." It suggested, however, that was "adequately accounted for" by the fact that much time was required for preparatory work. The reaudit staff of 110 seemed "exceedingly small" to the subcommittee, but it had assurances from the general accounting office that the latter has continued to employ "all qualified applicants" and will not limit the staff to 110. In this connection the subcommittee recommended that Congress "make a thorough reexamination of the progress of this reaudit in from three to five months."

Southern Railroads Propose Rate-Procedures Agreement

Southern railroads and the Pullman Company have filed with the Interstate Commerce Commission an application for approval of a rate-procedures agreement to be carried out through the Southern Freight Association, Southern Classification Committee, and Southern Passenger Association. Like the pending applications of eastern and western roads, the proposal of the southern lines was filed under the Interstate Commerce Act's section 5a, added last June by the Bulwinkle-Reed Act.

It was filed by Joseph G. Kerr, chairman of the Southern Freight Association, as attorney-in-fact for each of the participating carriers; and the commission has docketed it as Section 5a Application No. 6. The application pointed out that all the participating carriers are not members of all three organizations through which the proposed agreement would be carried out, and thus the

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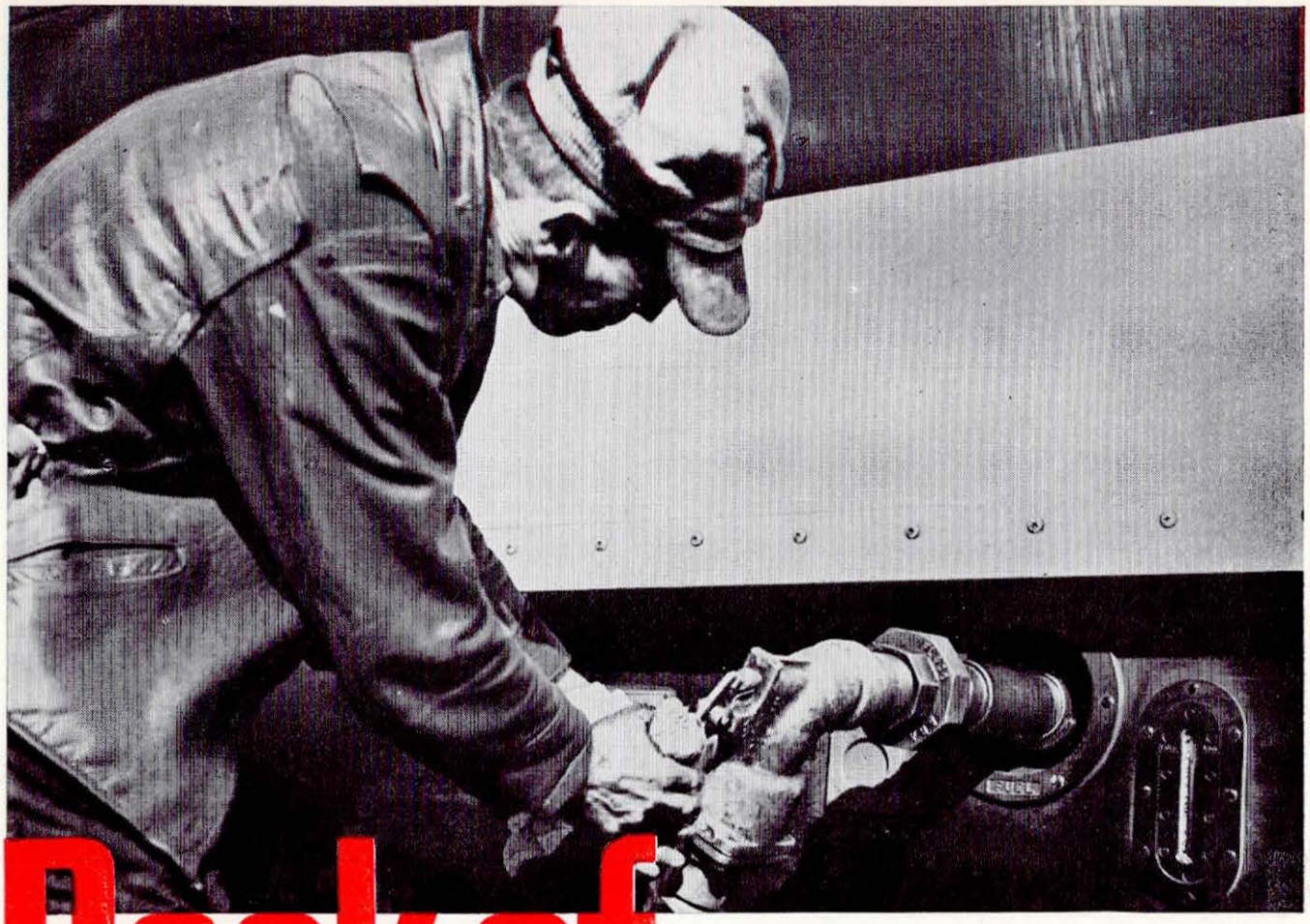
REVENUES AND EXPENSES OF RAILWAYS

MONTH OF NOVEMBER AND ELEVEN MONTHS OF CALENDAR YEAR 1948

Name of road		Av. mileage operated during period	Operating revenues			Operating Expenses					Operating ratio	Net from railway operation	Railway tax accruals	Net railway operating income	
						Maintenance of									
			Freight	Passenger	Total (inc. misc.)	Way and structures	Equipment	Traffic	Transportation	Total				1948	1947
Maine Central	Nov.	988	2,077,780	154,773	2,356,464	382,792	436,193	18,608	833,353	1,742,005	73.9	614,459	306,828	255,447	201,239
	11 mos.	988	20,915,031	1,991,559	24,442,755	4,601,057	4,582,874	196,706	9,210,386	19,328,183	79.1	5,114,572	2,385,244	2,260,487	1,861,576
Midland Valley	Nov.	334	205,052	8	209,457	42 193	19,581	3,254	69,703	141,388	67.5	68,069	29 451	28 331	19,904
	11 mos.	334	1,921,934	192	1,967,677	445,167	228,057	33,855	633,595	1,416 010	72.0	551,667	255,587	206,041	230,270
Minneapolis & St. Louis	Nov.	1,401	1,876,466	9,955	1,942,091	163,625	218,320	109,362	567,588	1 148,773	59.2	793,318	330,562	415,530	192,887
	11 mos.	1,404	17,897,407	102,011	18,603,581	3,190,671	2,692,810	1,117 777	6,120,555	14,-73,640	76.7	4,329,941	2,141,233	1,977,277	1,712,738
Minn., St. Paul & S. Ste. Marie	Nov.	3,225	2,891,147	132,923	3,223,101	745,772	514,317	67,151	1,304,704	2,736,698	84.9	486,403	211,314	211,498	367,150
	11 mos.	3,225	30,780,733	1,334,795	34,146,344	6,677,640	5,692,617	671,073	13,678,031	27,871,871	81.6	6,274,473	3,322,974	2,538,700	2,029,251
Duluth, South Shore & Atlantic	Nov.	530	451,287	10,832	490,044	93,228	81,499	17,131	207,174	409,538	83.6	80,506	23,428	35,982	52,674
	11 mos.	530	5,426,859	118,663	5,855,972	1,160,509	974,988	181,667	2,269,342	4,701,523	80.3	1,154,449	261,610	688,100	476,571
Spokane International	Nov.	152	175,710	1,055	195,187	25,891	24,139	4,587	72,595	136,688	70.0	58,499	6,722	42,064	33,327
	11 mos.	152	1,825,766	15,628	1,978,825	412,979	225,758	42,748	699,829	1,483,482	75.0	495,343	167,335	192,555	186,807
Mississippi Central	Nov.	148	215,357	—17	220,269	42,032	16,755	13,046	56,617	137,309	62.3	82,960	30,277	32,665	10,988
	11 mos.	148	2,097,570	2,866	2,148,023	438,755	205,466	131,200	517,627	1,386,497	64.5	761,526	273,095	295,990	145,345
Missouri & Arkansas	Nov.	...	3,133	—12	3,264	7,994	2,372	.....	245	12,591	100.	—9,334	2,040	—11,375	—21,371
	11 mos.	...	—8,024	—298	—184	82,687	31,223	40	8,000	165,113	100.	—165,297	23,603	—188,893	—184,797
Missouri-Illinois	Nov.	172	390,348	328	395,237	31,382	43,237	6,950	105,823	195,196	49.4	200,041	94,851	97,059	81,389
	11 mos.	172	4,251,190	3,743	4,287,779	689,610	457,826	71,854	1,124,517	2,432,694	56.7	1,855,085	789,881	938,288	730,686
Missouri-Kansas-Texas Lines	Nov.	3,253	6,831,986	352,649	7,697,291	1,032,972	1,090,635	226,821	2,961,529	5,618,033	73.0	2,079,258	768,664	846,271	391,511
	11 mos.	3,253	65,790,720	4,158,754	75,784,636	10,187,892	10,254,186	2,368,791	29,779,657	55,621,866	73.4	20,162,770	7,628,324	8,403,741	4,755,504
Missouri Pacific	Nov.	7,009	16,547,302	1,021,371	19,308,806	3,270,133	3,039,871	427,005	7,128,165	14,474,573	75.0	4,834,233	1,939,505	2,252,734	1,873,863
	11 mos.	7,011	172,537,540	12,737,106	202,243,879	30,903,745	31,216,975	4,331,608	79,099,409	152,353,166	75.3	49,890,713	17,067,229	24,638,941	19,416,501
Gulf Coast Lines	Nov.	1,719	3,373,925	85,990	3,641,146	684,430	440,597	79,928	1,251,867	2,577,760	70.8	1,063,383	332,938	519,094	674,906
	11 mos.	1,723	39,358,994	990,056	42,145,101	8,106,936	4,757,048	850,331	13,834,647	28,852,152	68.5	13,292,949	3,695,605	6,730,461	5,667,700
International-Great Northern	Nov.	1,110	2,401,035	190,346	2,921,349	505,073	445,549	51,434	1,191,251	2,323,130	79.5	598,219	155,390	298,369	81,139
	11 mos.	1,110	25,781,986	2,159,991	30,795,436	5,216,532	4,613,213	551,636	13,745,097	25,484,400	82.8	5,311,036	1,275,939	2,308,168	999,943
Monongahela	Nov.	170	729,092	1,099	734,920	69,452	65,955	890	247,165	390,627	53.2	344,293	93,711	109,224	181,254
	11 mos.	170	7,764,934	12,785	7,839,525	855,142	712,339	15,363	2,418,668	4,060,825	51.8	3,778,700	1,024,534	1,418,647	1,576,126
Montour	Nov.	51	243,446	.....	245,486	39,308	79,789	858	82,362	216,038	88.0	29,448	46,253	52,034	76,747
	11 mos.	51	2,818,265	.....	2,832,424	280,266	799,889	8,312	892,028	2,090,947	73.8	741,477	636,049	762,075	701,489
Nashville, Chatt. & St. Louis	Nov.	1,051	2,557,823	167,761	2,972,244	439,601	481,681	108,799	1,193,492	2,346,564	78.9	625,680	314,045	308,603	201,079
	11 mos.	1,051	27,617,071	2,128,897	32,615,372	4,904,346	5,811,254	1,153,815	13,391,784	26,616,354	81.6	5,999,018	3,279,895	2,635,271	1,606,664
New York Central	Nov.	10,745	49,444,147	11,003,358	66,650,915	9,245,407	13,774,450	1,045,829	30,135,698	57,410,071	86.1	9,240,844	4,476,516	3,177,357	2,309,761
	11 mos.	10,745	513,852,210	120,567,865	707,541,305	101,218,718	143,454,360	11,165,098	316,078,926	604,932,914	85.5	102,608,391	49,431,152	33,584,200	22,217,486
Pittsburgh & Lake Erie	Nov.	222	3,454,186	102,175	3,727,973	473,907	1,016,833	66,771	1,400,041	3,136,070	84.1	591,903	568,320	699,554	657,826
	11 mos.	223	38,359,923	1,085,462	41,142,595	5,021,253	10,404,714	699,739	14,478,901	32,422,590	78.8	8,720,005	6,820,987	8,994,280	6,682,194
New York, Chicago & St. Louis	Nov.	1,687	9,198,205	148,132	9,552,056	944,582	1,462,571	217,712	3,275,321	6,240,856	65.3	3,311,200	1,535,675	1,400,991	1,064,478
	11 mos.	1,687	96,611,753	1,470,725	100,308,988	12,267,592	14,767,201	2,338,138	35,024,314	67,734,881	67.5	32,574,107	12,826,929	15,280,742	9,126,349
New York, New Haven & Hartford	Nov.	1,801	8,186,981	4,467,500	13,943,282	1,982,883	2,166,882	259,797	5,694,204	10,995,194	78.9	2,948,088	1,235,000	886,296	174,574
	11 mos.	1,821	89,753,167	51,555,282	156,487,516	22,834,543	22,155,037	2,721,030	65,718,968	123,386,765	78.8	33,100,751	12,621,000	9,972,862	4,396,283
New York Connecting	Nov.	21	260,647	.....	277,188	99,588	14,477	.....	53,687	170,156	61.4	107,032	61,605	75,626	12,535
	11 mos.	21	2,571,954	.....	2,820,388	822,014	199,298	.....	737,447	1,785,931	63.3	1,034,457	685,442	709,674	142,872
New York, Ontario & Western	Nov.	544	628,962	491	667,518	107,762	92,021	30,559	308,523	573,256	85.9	94,262	39,411	—14,559	—186,274
	11 mos.	544	6,668,467	162,250	7,358,132	1,245,609	1,182,081	330,518	3,731,081	6,836,429	92.9	521,703	453,269	—835,504	—1,107,715
New York, Susquehanna & Western	Nov.	120	347,855	44,377	409,088	35,716	53,272	5,897	170,515	289,565	70.8	119,583	27,653	81,455	33,234
	11 mos.	120	3,960,553	479,033	4,627,541	486,705	529,650	62,770	1,948,670	3,298,322	71.3	1,329,219	353,321	481,792	238,471
Norfolk & Western	Nov.	2,129	14,283,082	491,278	15,300,380	2,258,671	2,910,168	271,791	4,948,761	11,066,352	72.3	4,234,028	2,550,935	2,713,918	3,197,234
	11 mos.	2,129	158,315,339	5,547,744	170,054,787	21,473,502	31,077,180	2,910,651	52,977,505	114,378,270	67.3	55,676,517	31,306,515	35,993,543	31,734,262
Norfolk Southern	Nov.	726	765,279	.....	787,322	164,252	88,159	43,448	270,417	624,315	79.3	163,007	80,063	61,366	307,532
	11 mos.	726	8,911,732	1,094	9,175,838	1,815,702	925,709	439,123	3,132,776	6,501,726	77.4	2,274,112	1,132,780	871,976	630,993
Northern Pacific	Nov.	6,889	12,443,808	609,862	14,040,348	2,168,915	2,319,266	280,756	4,491,484	10,284,006	74.0	3,656,252	1,950,709	1,925,497	1,836,678
	11 mos.	6,900	125,636,155	6,642,961	143,505,093	24,034,295	25,663,874	2,795,276	51,501,427	110,782,378	77.2	32,722,715	17,055,786	18,658,179	16,146,668
Northwestern Pacific	Nov.	331	672,985	8,385	709,472	140,786	76,797	4,762	370,227	605,463	85.3	104,009	36,769	19,498	658
	11 mos.	331	7,564,296	98,889	7,967,312	1,715,878	911,449	47,549	3,703,854	6,547,414	82.2	1,419,898	393,806	531,604	418,393
Oklahoma City-Ada-Atoka	Nov.	132	95,178	.....	96,301	20,042	8,707	1,574	31,457	65,434	67.9	30,867	11,538	2,324	—447
	11 mos.	132	990,435	2	1,008,224	237,540	52,555	14,394	267,546	607,016	60.2	401,208	157,643	116,112	45,860
Pennsylvania	Nov.	10,108	64,959,978	13,039,274	85,172,781	9,424,175	17,065,506	1,321,599	38,150,538	69,202,502	81.2	15,970,279	7,307,797	7,002,496	3,597,480
	11 mos.	10,108	693,082,501	145,386,930	917,917,182	108,356,627	191,649,714	12,700,092	413,209,550	761,205,173	82.9	156,712,009	78,139,164	65,508,335	32,158,919
Long Island	Nov.	376	1,400,914	2,552,431	4,150,000	682,533	891,114	45,160	2,483,842	4,308,526	103.8	—158,526	478,021	—983,828	—600,728
	11 mos.	376	15,433,827	30,881,914	48,707,024	7,460,022	8,711,529	362,206	25,862,213	43,590,949	89.5	5,116,075	5,022,334	—3,448,031	—1,552,424

Table continued on next left-hand page.



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applicants "consider it desirable for the three organizations to continue functioning separately." And because "important rate proposals" can be handled by the executive committees of the three organizations, the agreement makes no provision for continuance of the Traffic Executive Association—Southern Territory or the Southeastern Presidents' Conference as "component parts of rate conference procedure in Southern territory."

The commission's notice announcing receipt of the application said that any interested person desiring a hearing on the matter should request it within 20 days from the notice's date, which was January 6. The commission has assigned the application of the western roads for hearing before its Division 2 at Washington, D. C., on February 28, a procedure requested by the National Industrial Traffic League. While the league has indicated its general support of the application, as well as of that filed by eastern roads, the Department of Justice has indicated that it will object to the proposals (see *Railway Age* of January 1, page 49).

Another Section 5a application received recently by the commission was that of trucker and forwarder members of the National Freight Classification published by American Trucking Associations, Inc. This is Section 5a Application No. 5, and participants in the proposed agreement include 5,342 common-carrier truck lines and five freight forwarders.

House "Small Business" Committee Makes Transport Recommendations

Various recommendations relating to transportation were made by the House's Select Committee on Small Business in the annual report which it submitted late in December. The committee, which was set up by the Republican-controlled 80th Congress, was headed by Representative Ploeser, Republican of Missouri.

First of its recommendations for the "strengthening of competition in transportation" was that calling for action by Congress to "make it unlawful for any carrier in commerce to grant preferential commodity rates to any shipper or shippers." The committee, the report said, "has listened in dismay to the testimony which has cited a number of instances where private railway carriers have granted preferential commodity rates to larger competitors to the injury of smaller ones."

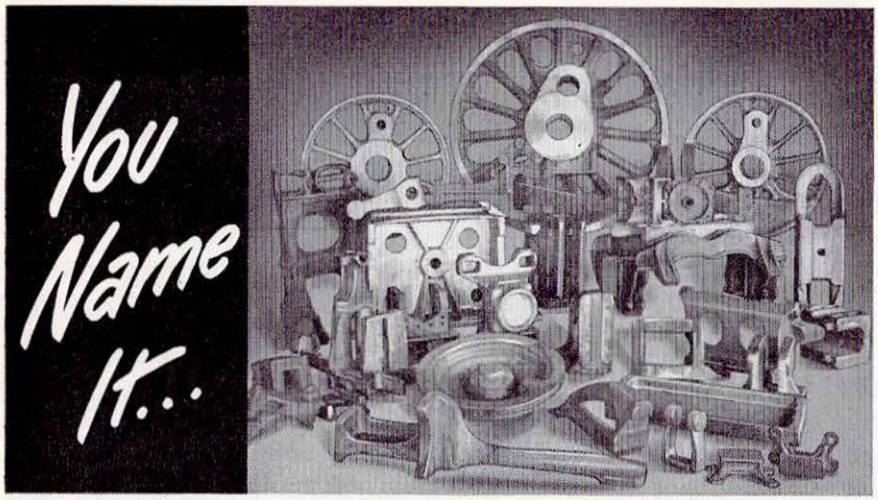
Another recommendation in the same group said that the Federal Trade Commission "should be directed to make a study on the extent to which transportation companies own or control, directly or indirectly, companies operating competing and different modes of transportation, including how such competing modes of transportation were acquired in the light of prohibitions in existing transportation regulatory acts." Also, the next recommendation said, Congress "should direct the Interstate Commerce Commission to make effective its program for eliminating discriminatory freight rates between territories and regions of the United States by requiring the carriers to adopt immediately a uniform freight classification"; and the commission should be requested "to report back to Congress within six months on what it has done in this respect." This final recommendation in this group called for an F.T.C. study "of the control of railroads, motor carriers, inland water carriers, or air carriers by banking or other financial institutions."

The committee's proposals for a "revitalization of the Federal Trade Commission" included a recommendation that this Commission be directed to make studies of "interstate trade barriers," and of "the desirability and feasibility of compelling shippers to divest themselves of all controlling interests, directly or indirectly, in any transportation company or companies." In the case of short-line railroads, the report added, the F.T.C. "should be directed to consider the possibility of canceling their charters as interstate carriers with the power to issue through bills of lading and to restore them where possible to their original status as extensions of plant facilities."

Another recommendation of the report was that calling upon Congress to give consideration to a "reexamination of exemptions under the anti-trust laws." All of these recommendations were also made by the committee in a report which it issued along with the annual report under the title: Monopolistic and Unfair Trade Practices. The latter included a summary of recommendations made to the committee by Arne C. Wiprud, former chief of the Transportation Section of the Department of Justice's Anti-Trust Division. Among the Wiprud recommendations was one calling for repeal of the Bulwinkle-Reed Act which was enacted last year to grant immunity from anti-trust laws to carriers participating, with I.C.C. approval, in joint agreements relating to rates.

Railroad-"Non-Op" Talks Continue

Negotiations which were resumed on January 6 at Chicago between representatives of the railroads and of the 16 non-operating unions, concerning the brotherhoods' demand for a 25-cents-an hour pay increase and a 40-hour work week, were continuing as this issue of *Railway Age* went to press on January 13. The parties are using as the basis of their discussions the Presidential Emergency Board's recommendations that the brotherhoods be given a 7-cent hourly wage increase retroactive to October 1, 1948, and that the 40-hour week be established for non-operating employees on September 1, 1949, without any reduction in pay (see *Railway Age* of December 25, 1948, page 44). Neither party has accepted or rejected the board's recommendations.



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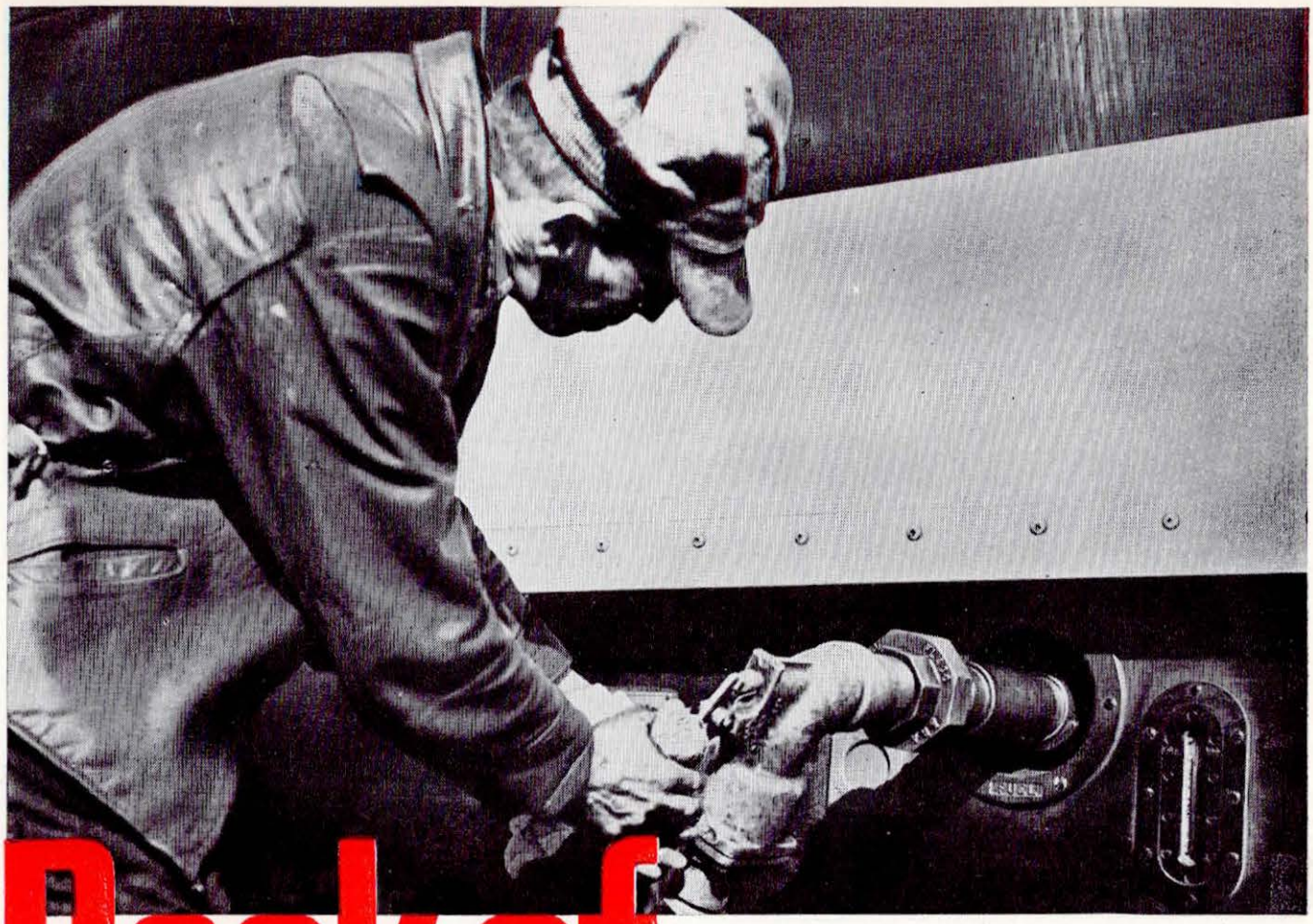
REVENUES AND EXPENSES OF RAILWAYS

MONTH OF NOVEMBER AND ELEVEN MONTHS OF CALENDAR YEAR 1948

Name of road		Av. mileage operated during period	Operating revenues: Freight	Passenger	Total (inc. misc.)	Operating Expenses: Maintenance of: Way and structures	Equipment	Traffic	Transportation	Total	Operating ratio	Net from railway operation	Railway tax accruals	Net railway operating income: 1948	1947
Pennsylvania-Reading Seashore Lines	Nov.	386	614,579	171,785	815,345	355,936	115,994	9,864	585,489	1,104,905	135.5	—289,560	96,690	—528,198	—363,904
	11 mos.	388	6,448,756	4,046,182	10,930,723	2,424,330	1,324,193	119,937	6,880,428	11,090,634	101.5	—159,911	1,056,950	—2,796,626	—1,892,616
Pittsburg & Shawmut	Nov.	97	203,136	.....	204,100	65,376	39,982	3,087	63,850	180,403	88.4	23,697	6,122	11,108	16,681
	11 mos.	97	2,825,233	.....	2,835,600	649,103	445,313	35,180	786,647	2,012,574	71.0	823,026	285,880	386,518	552,495
Pittsburgh & West Virginia	Nov.	135	771,949	303	799 791	119,380	135,295	40,288	192,786	520,583	65.0	279,208	126,532	160,799	105,867
	11 mos.	135	7,760,174	392	8,082,758	1,177,258	1,296,952	431,595	1,911,928	5,278,588	65.3	2,804,170	1,259,623	1,796,553	1,084,281
Reading	Nov.	1,338	9,990,539	644,522	11,109 177	1,735,998	2,313,515	145,924	4,186,308	8,682,674	78.2	426,503	1,222,860	1,257,184	1,025,884
	11 mos.	1,344	105,623,742	7,274,695	118,752,497	19,658,819	22,655,975	1,414,437	45,803,540	92,839,978	78.2	25,912,519	12,365,601	13,028,948	11,087,896
Richmond, Fredericksburg & Potomac	Nov.	118	1,292,457	427,283	1,956,226	271,819	382,349	24,780	896,852	1,691,727	86.5	264,499	156,147	34,317	9,129
	11 mos.	118	14,754,674	6,088,227	23,533,339	3,037,197	3,577,972	216,884	9,537,925	17,754,767	75.4	5,778,872	2,695,806	2,175,596	2,011,199
Rutland	Nov.	407	386,949	32,929	501,383	71,685	96,891	14,195	271,459	471,727	94.0	30,156	31,126	—21,967	—43,870
	11 mos.	407	4,497,915	431,572	5,826,942	794,391	1,058,848	151,889	3,024,626	5,224,783	87.7	602,159	329,263	65,819	—554,928
St. Louis-San Francisco	Nov.	4,645	8,071,451	556,902	9,340 942	1,522,834	1,601,287	253,984	3,933,554	7,732,304	82.8	1,608,638	1,004,197	709,988	1,063,886
	11 mos.	4,645	88,222,486	6,819,842	102,868,088	15,734,122	16,803,543	2,674,709	43,181,651	82,749,821	80.4	20,118,267	10,756,811	10,417,257	9,034,954
St. Louis, San Francisco & Texas	Nov.	159	382,414	11,242	416,000	54,745	33,409	15,784	154,067	268,447	64.5	147,553	34,161	84,112	29,292
	11 mos.	159	4,056,410	139,638	4,418,325	570,528	384,126	175,990	1,912,744	3,157,169	71.4	1,261,756	406,869	545,239	261,823
St. Louis Southwestern Lines	Nov.	1,569	5,723,454	73,518	5,983,161	643,743	644,369	139,263	1,859,014	3,450,232	57.7	2,532,929	1,099,413	1,184,944	1,374,161
	11 mos.	1,574	55,901,402	763,432	58,551,392	6,338,635	6,824,701	1,493,352	18,955,077	35,459,566	60.6	23,092,126	9,653,197	10,981,197	9,537,578
Seaboard Air Line	Nov.	4,153	8,933,126	1,082,816	10,729,799	1,587,895	2,211,912	325,445	4,143,720	8,776,382	81.8	1,953,417	940,368	835,004	609,533
	11 mos.	4,152	97,897,477	14,563,129	121,076,447	18,227,716	21,774,563	3,400,518	46,138,257	95,149,408	78.6	25,927,039	11,290,087	12,247,694	7,852,873
Southern Railway	Nov.	6,422	17,348,407	1,459,311	20,204,098	2,797,079	3,475,783	355,271	8,069,950	15,522,279	76.8	4,681,819	2,210,478	2,240,431	2,099,235
	11 mos.	6,473	189,948,203	19,200,803	224,247,386	30,720,558	39,677,087	3,843,643	86,503,579	169,383,115	75.5	54,864,571	25,275,485	26,247,529	19,039,277
Alabama Great Southern	Nov.	316	1,334,251	90,417	1,567,084	217,220	259,293	31,775	552,434	1,119,258	71.4	447,826	255,786	253,136	213,314
	11 mos.	316	14,466,345	1,330,938	16,840,322	2,258,968	3,338,882	335,407	5,778,217	12,291,992	73.0	4,548,230	2,626,972	2,425,066	1,597,796
Cinn., New Orleans & Texas Pacific	Nov.	337	2,990,901	177,464	3,378,349	406,204	659,265	59,395	977,659	2,218,955	65.7	1,159,894	593,789	673,174	592,434
	11 mos.	337	32,715,599	2,283,108	36,742,391	4,485,526	6,920,923	651,510	10,876,446	24,068,031	65.5	12,674,360	6,488,112	7,535,729	5,645,373
Georgia Southern & Florida	Nov.	397	484,140	34,191	569,741	134,840	83,030	7,854	225,256	465,394	81.7	104,347	17,290	22,473	36,963
	11 mos.	397	5,271,993	678,494	6,536,197	1,388,557	826,537	87,320	2,441,327	4,925,033	75.4	1,611,564	430,061	416,938	295,717
New Orleans & Northeastern	Nov.	204	965,688	39,264	1,078,760	145,972	108,139	19,852	300,868	615,666	57.1	463,094	201,226	208,905	216,651
	11 mos.	204	10,419,866	721,204	11,749,490	1,597,584	1,226,238	205,770	2,911,360	6,352,151	54.1	5,397,339	2,360,109	2,447,153	1,773,662
Southern Pacific	Nov.	8,174	32,794,040	3,634,870	39,048,929	4,586,953	7,369,180	748,882	16,590,542	31,306,088	80.2	7,742,841	4,087,560	2,513,857	1,139,264
	11 mos.	8,185	347,806,700	44,824,954	421,833,337	47,946,354	79,198,485	7,691,881	173,543,459	330,833,972	78.4	90,999,865	42,433,442	34,452,295	27,657,428
Texas & New Orleans	Nov.	4,316	10,052,970	785,178	11,510,139	1,388,919	1,550,684	211,612	4,336,606	7,973,220	69.3	3,537,319	1,480,358	1,508,333	1,283,299
	11 mos.	4,316	101,478,618	9,312,046	118,404,129	14,860,210	16,715,019	2,228,205	46,743,999	85,653,280	72.3	32,751,249	13,015,618	13,651,792	13,163,654
Spokane, Portland & Seattle	Nov.	945	1,972,293	86,465	2,172,722	531,436	224,213	18,787	835,694	1,707,689	78.6	465,033	155,332	196,428	488,075
	11 mos.	945	21,149,191	1,060,094	23,651,688	5,387,461	2,498,499	216,892	8,919,166	18,142,137	76.7	5,509,551	1,751,432	2,019,583	1,685,325
Tennessee Central	Nov.	286	375,153	3,559	397,692	77,137	68,154	9,290	189,697	362,668	91.2	35,024	27,021	—24,469	—37,402
	11 mos.	286	4,041,636	80,448	4,359,521	717,204	727,526	96,426	1,983,551	3,709,591	85.1	650,330	260,864	42,917	—158,218
Texas & Pacific	Nov.	1,854	5,656,938	409,781	6,638,484	718,773	965,431	167,540	2,572,456	4,704,938	70.9	1,933,546	746,416	884,631	639,108
	11 mos.	1,854	60,753,027	5,280,980	71,242,619	8,779,645	10,675,572	1,771,660	28,021,993	52,416,531	73.6	18,826,088	7,169,882	8,016,923	6,612,667
Texas-Mexican	Nov.	162	269,378	.....	298,431	115,137	33,545	6,114	69,741	238,673	80.0	59,758	39,182	4,057	61,238
	11 mos.	162	2,608,193	66	2,954,755	586,176	364,907	64,592	726,184	1,946,416	65.9	1,008,339	506,617	295,904	576,180
Toledo, Peoria & Western	Nov.	239	422,779	19	428,102	72,597	21,826	34,082	110,654	263,380	61.5	164,722	58,688	76,936	19,449
	11 mos.	239	4,186,015	Dr. 19	4,262,552	815,508	257,090	365,372	1,091,473	2,853,501	66.9	1,409,051	526,000	635,425	—319,482
Union Pacific System	Nov.	9,751	32,579,383	2,815,602	38,414,121	5,060,737	6,476,446	804,681	13,596,752	27,917,996	72.7	10,496,125	5,159,264	4,047,828	3,003,448
	11 mos.	9,752	330,358,256	38,812,090	401,203,046	55,523,013	65,576,319	8,567,284	140,332,448	292,194,633	72.8	109,008,413	56,029,553	39,919,269	32,449,566
Utah	Nov.	111	135,890	.....	136,661	Cr. 11,911	46,094	627	61,307	104,355	76.7	31,706	12,397	27,319	—1,456
	11 mos.	111	1,488,547	.....	1,492,635	305,683	520,541	7,005	619,523	1,539,949	103.2	—47,284	135,477	—90,334	15,885
Virginian	Nov.	663	3,262,209	4,612	3,364,850	382,807	586,443	39,338	829,018	1,916,606	57.0	1,448,244	1,160,000	483,412	613,855
	11 mos.	661	33,624,451	59,691	34,699,715	4,181,598	7,220,081	430,756	8,940,710	21,716,399	62.6	12,983,346	7,076,860	8,049,381	8,298,752
Wabash	Nov.	2,393	8,149,649	432,560	9,182,263	1,120,388	1,222,231	268,804	3,751,621	6,714,592	73.1	2,467,671	955,435	1,031,881	950,215
	11 mos.	2,393	87,018,719	5,085,174	98,633,233	13,348,810	12,962,855	2,790,996	38,331,948	71,065,259	72.1	27,567,974	10,682,177	12,156,157	9,091,391
Ann Arbor	Nov.	294	674,963	4,921	698,006	83,217	4 142,896	24,540	316,720	587,484	84.2	110,532	47,598	33,309	47,773
	11 mos.	294	7,920,942	48,956	8,237,606	999,531	1,609,191	248,736	3,320,130	6,372,018	77.4	1,865,648	800,570	857,909	558,103
Western Maryland	Nov.	837	3,621,669	10,534	3,787,250	529,283	796,023	69,908	1,208,139	2,720,254	71.8	1,066,996	668,000	492,631	813,323
	11 mos.	837	39,638,494	147,339	41,142,137	5,344,480	7,901,285	731,072	13,120,401	28,452,020	69.2	12,690,167	6,072,000	8,014,213	7,298,607
Western Pacific	Nov.	1,195	3,617,056	114,580	3,810,439	532,944	618,008	133,102	1,198,914	2,686,967	70.5	1,123,502	642,668	428,194	602,530
	11 mos.	1,195	37,940,728	1,791,258	40,806,092	5,623,344	6,581,700	1,469,090	14,256,542	30,124,273	73.8	10,681,819	4,646,746	5,234,773	4,100,565
Wheeling & Lake Erie	Nov.	505	3,048,050	8	3,210,671	418,488	426,052	63,993	988,929	1,988,655	61.9	1,222,016	609,599	803,907	501,449
	11 mos.	505	32,540,879	25	34,221,832	4,362,621	4,746,044	669,556	10,176,392	20,798,724	60.8	13,423,138	6,795,531	8,667,244	5,914,904
Wisconsin Central	Nov.	1,051	2,159,364	41,803	2,342,028	215,217	160,097	61,529	1,005,508	1,528,914	65.3	813,114	322,672	343,802	239,525
	11 mos.	1,051	25,198,757	521,080	27,395,200	3,474,142	3,717,885	346,941	10,883,240	19,623,903	71.6	7,771,297	2,626,618	3,622,585	3,209,263



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applicants "consider it desirable for the three organizations to continue functioning separately." And because "important rate proposals" can be handled by the executive committees of the three organizations, the agreement makes no provision for continuance of the Traffic Executive Association—Southern Territory or the Southeastern Presidents' Conference as "component parts of rate conference procedure in Southern territory."

The commission's notice announcing receipt of the application said that any interested person desiring a hearing on the matter should request it within 20 days from the notice's date, which was January 6. The commission has assigned the application of the western roads for hearing before its Division 2 at Washington, D. C., on February 28, a procedure requested by the National Industrial Traffic League. While the league has indicated its general support of the application, as well as of that filed by eastern roads, the Department of Justice has indicated that it will object to the proposals (see *Railway Age* of January 1, page 49).

Another Section 5a application received recently by the commission was that of trucker and forwarder members of the National Freight Classification published by American Trucking Associations, Inc. This is Section 5a Application No. 5, and participants in the proposed agreement include 5,342 common-carrier truck lines and five freight forwarders.

House "Small Business" Committee Makes Transport Recommendations

Various recommendations relating to transportation were made by the House's Select Committee on Small Business in the annual report which it submitted late in December. The committee, which was set up by the Republican-controlled 80th Congress, was headed by Representative Ploeser, Republican of Missouri.

First of its recommendations for the "strengthening of competition in transportation" was that calling for action by Congress to "make it unlawful for any carrier in commerce to grant preferential commodity rates to any shipper or shippers." The committee, the report said, "has listened in dismay to the testimony which has cited a number of instances where private railway carriers have granted preferential commodity rates to larger competitors to the injury of smaller ones."

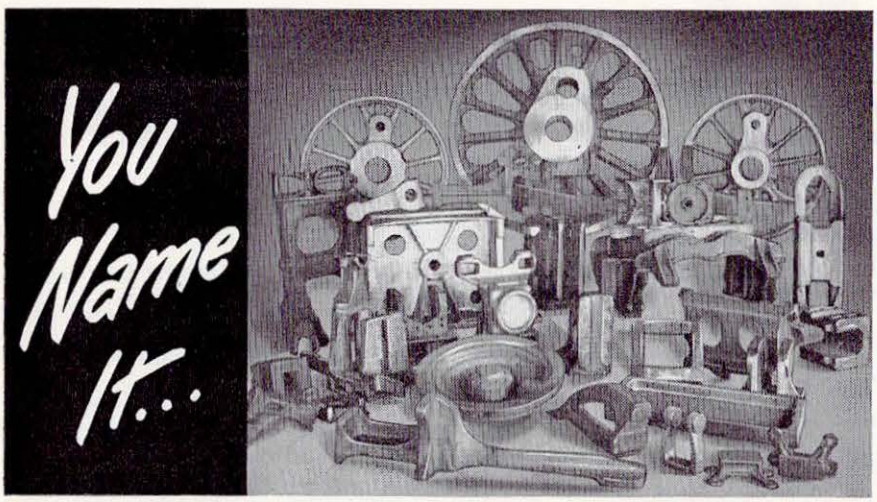
Another recommendation in the same group said that the Federal Trade Commission "should be directed to make a study on the extent to which transportation companies own or control, directly or indirectly, companies operating competing and different modes of transportation, including how such competing modes of transportation were acquired in the light of prohibitions in existing transportation regulatory acts." Also, the next recommendation said, Congress "should direct the Interstate Commerce Commission to make effective its program for eliminating discriminatory freight rates between territories and regions of the United States by requiring the carriers to adopt immediately a uniform freight classification"; and the commission should be requested "to report back to Congress within six months on what it has done in this respect." This final recommendation in this group called for an F.T.C. study "of the control of railroads, motor carriers, inland water carriers, or air carriers by banking or other financial institutions."

The committee's proposals for a "revitalization of the Federal Trade Commission" included a recommendation that this Commission be directed to make studies of "interstate trade barriers," and of "the desirability and feasibility of compelling shippers to divest themselves of all controlling interests, directly or indirectly, in any transportation company or companies." In the case of short-line railroads, the report added, the F.T.C. "should be directed to consider the possibility of canceling their charters as interstate carriers with the power to issue through bills of lading and to restore them where possible to their original status as extensions of plant facilities."

Another recommendation of the report was that calling upon Congress to give consideration to a "reexamination of exemptions under the anti-trust laws." All of these recommendations were also made by the committee in a report which it issued along with the annual report under the title: Monopolistic and Unfair Trade Practices. The latter included a summary of recommendations made to the committee by Arne C. Wiprud, former chief of the Transportation Section of the Department of Justice's Anti-Trust Division. Among the Wiprud recommendations was one calling for repeal of the Bulwinkle-Reed Act which was enacted last year to grant immunity from anti-trust laws to carriers participating, with I.C.C. approval, in joint agreements relating to rates.

Railroad-"Non-Op" Talks Continue

Negotiations which were resumed on January 6 at Chicago between representatives of the railroads and of the 16 non-operating unions, concerning the brotherhoods' demand for a 25-cents-an hour pay increase and a 40-hour work week, were continuing as this issue of *Railway Age* went to press on January 13. The parties are using as the basis of their discussions the Presidential Emergency Board's recommendations that the brotherhoods be given a 7-cent hourly wage increase retroactive to October 1, 1948, and that the 40-hour week be established for non-operating employees on September 1, 1949, without any reduction in pay (see *Railway Age* of December 25, 1948, page 44). Neither party has accepted or rejected the board's recommendations.



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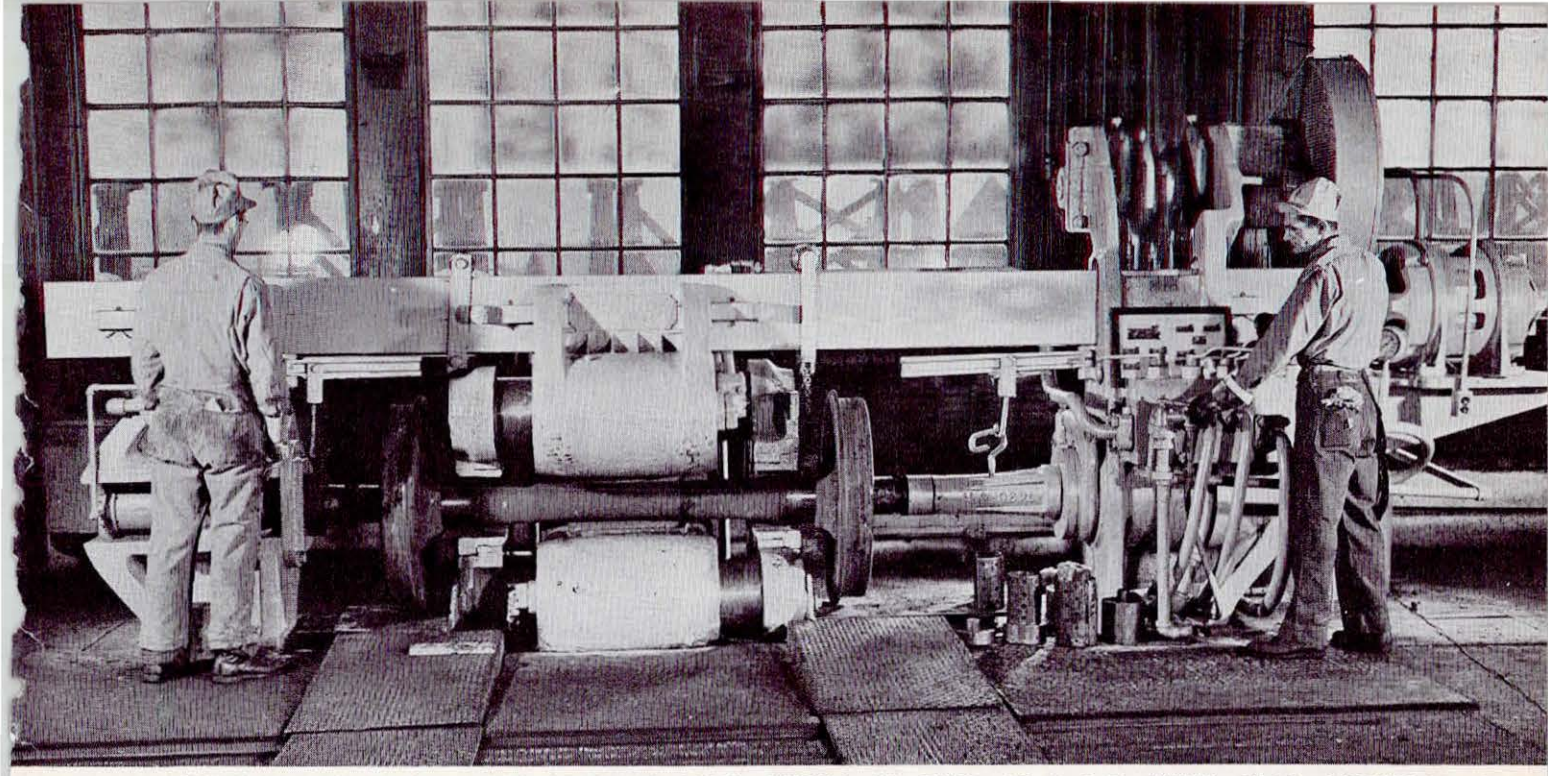

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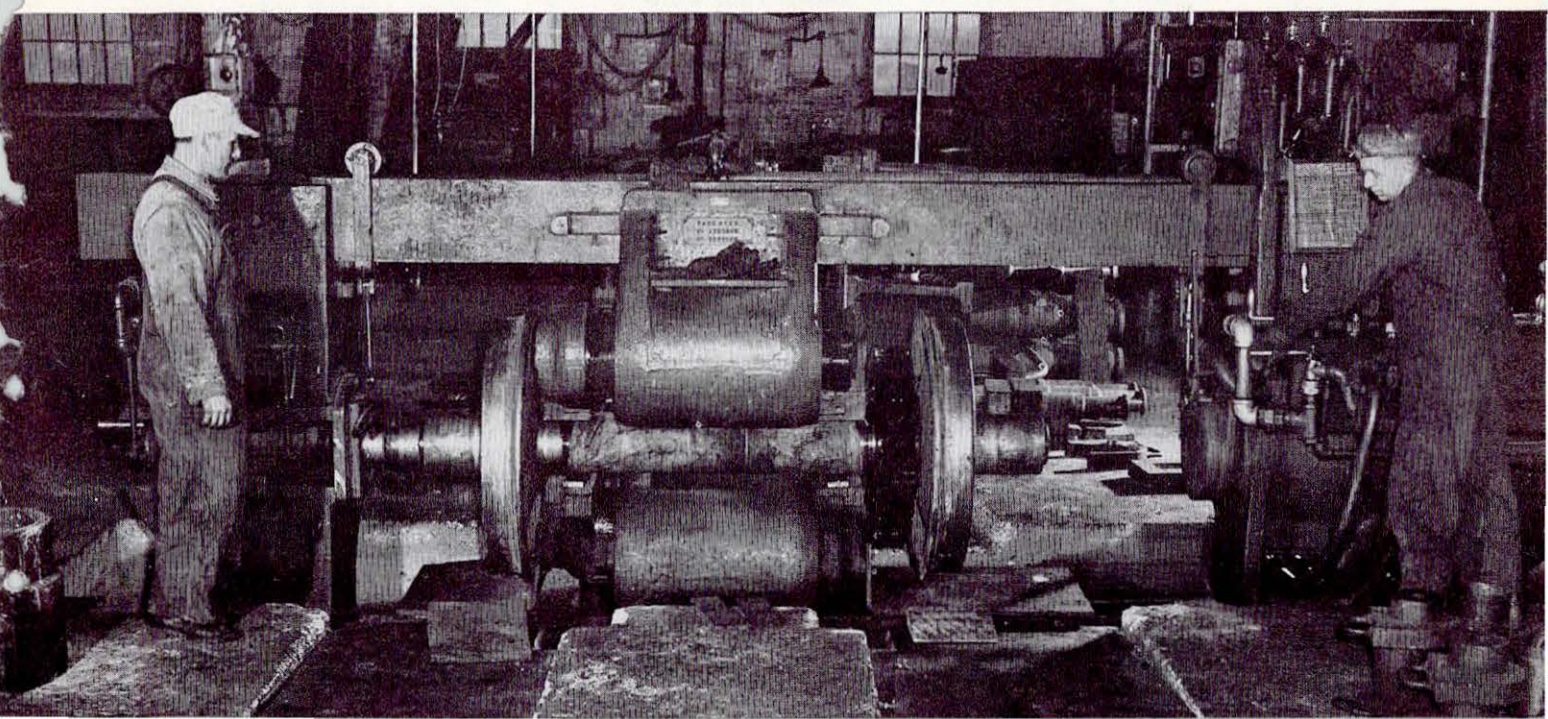

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General News

Freight Bill Reaudit

(*Continued from page* 48)

"accelerated" audit. The total of additional overpayments discovered in the reaudit was put at $2,154,937. From that the subcommittee proceeded to build up its estimate of the potential total recovery. It said:

"On the basis of these figures alone, projected over the total accelerated audit period, the recovery which will be made through complete reaudit will equal approximately $250,000,000. It should be noted, however, that the reaudit up to November 13 had not encompassed any substantial development of transit, ground storage or cancelled tonnage information or the audit of other vouchers for which development is required. Since it seems clear from the testimony before the subcommittee that the great bulk of the overpayments undetected on the accelerated audit were in these last items, based on our very limited information to date the total recoveries should exceed the $350,000,000 estimated by the [August 7, 1948] report but the reaudit has not yet progressed far enough to definitely determine the accuracy of this figure."

Appraising the progress of the reaudit, the subcommittee said that the number of vouchers handled up to November 13, 1948, was "disappointingly small." It suggested, however, that was "adequately accounted for" by the fact that much time was required for preparatory work. The reaudit staff of 110 seemed "exceedingly small" to the subcommittee, but it had assurances from the general accounting office that the latter has continued to employ "all qualified applicants" and will not limit the staff to 110. In this connection the subcommittee recommended that Congress "make a thorough reexamination of the progress of this reaudit in from three to five months."

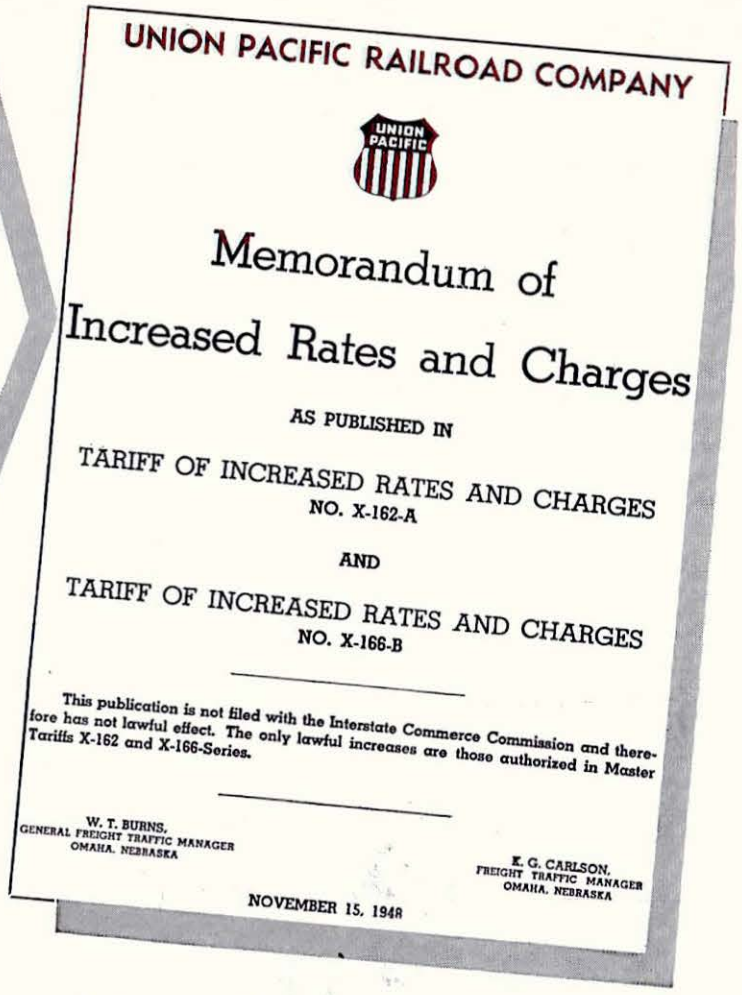
Southern Railroads Propose Rate-Procedures Agreement

Southern railroads and the Pullman Company have filed with the Interstate Commerce Commission an application for approval of a rate-procedures agreement to be carried out through the Southern Freight Association, Southern Classification Committee, and Southern Passenger Association. Like the pending applications of eastern and western roads, the proposal of the southern lines was filed under the Interstate Commerce Act's section 5a, added last June by the Bulwinkle-Reed Act.

It was filed by Joseph G. Kerr, chairman of the Southern Freight Association, as attorney-in-fact for each of the participating carriers; and the commission has docketed it as Section 5a Application No. 6. The application pointed out that all the participating carriers are not members of all three organizations through which the proposed agreement would be carried out, and thus the

. . . "Hasten to tell you It's a pippin"

says one California Transportation Counselor


UNION PACIFIC RAILROAD COMPANY
UNION PACIFIC
Memorandum of
Increased Rates and Charges
AS PUBLISHED IN
TARIFF OF INCREASED RATES AND CHARGES
NO. X-162-A
AND
TARIFF OF INCREASED RATES AND CHARGES
NO. X-166-B
This publication is not filed with the Interstate Commerce Commission and therefore has not lawful effect. The only lawful increases are those authorized in Master Tariffs X-162 and X-166-Series.
W. T. BURNS,
GENERAL FREIGHT TRAFFIC MANAGER
OMAHA, NEBRASKA
K. G. CARLSON,
FREIGHT TRAFFIC MANAGER
OMAHA, NEBRASKA
NOVEMBER 15, 1948

The rate information contained in the booklet "Memorandum of Increased Rates and Charges," is indicated by the Table of Contents shown below. *

Since the booklet was released by Union Pacific, letters of appreciation and requests for additional copies have been coming in from all points of the compass.

The California Transportation Counselor goes on to say—"You cannot realize what a great help this will be to traffic men who wrestle with those Siamese twins '162—166.'"

and here's what others say:

"Of the many tables we have seen, we believe the one prepared by you is the most practical for the purposes for which it was devised."

★ ★ ★

"This publication meets a crying need for some simplification in the present publication of many rates."

"It is encouraging to know that one carrier has attempted to simplify the checking of rates."

★ ★ ★

"The Union Pacific Railroad deserves the compliments and thanks of the shipping public for preparing the booklet which combines the two increased tariffs."

"It is a wonderful job and if you so desire I should like very much to include an item in the Chamber of Commerce Transportation Bulletin."

★ ★ ★

"With the current rate structure being as complicated as it is, you can appreciate how much this information means to anyone interested."

★ ★ ★

"This is a very clever document and one which will enable me to get rid of about ten supplements which are dogeared and frayed."

★ ★ ★

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* NOTE THIS TABLE OF CONTENTS

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SECTION 2	Chart showing ex parte 162-A and ex parte 166-B increases between various increase groups.
SECTION 3	Alphabetical list of commodities accorded specific or maximum increases in master tariffs X-162-A and X-166-B.
SECTION 4	Consolidated increase table "A" on commodities other than grain and except commodities on which maximum increases are provided.
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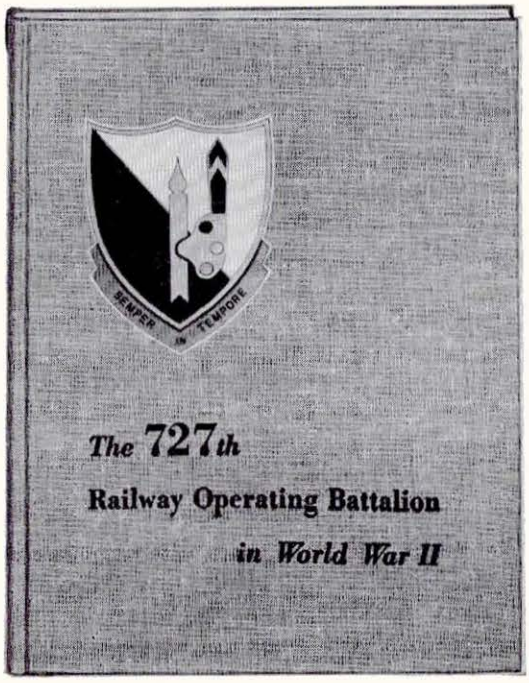

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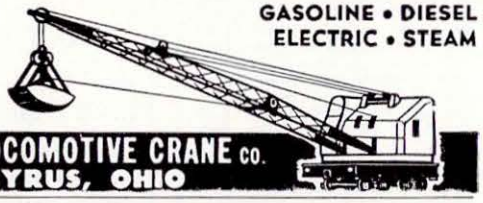

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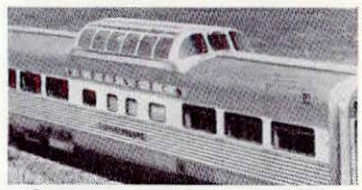

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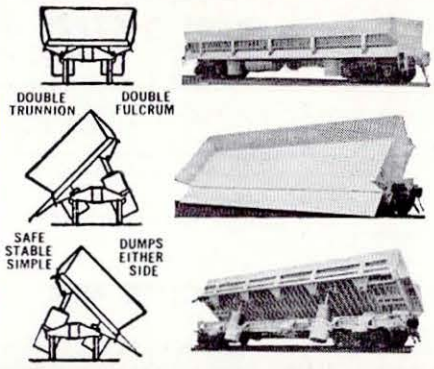

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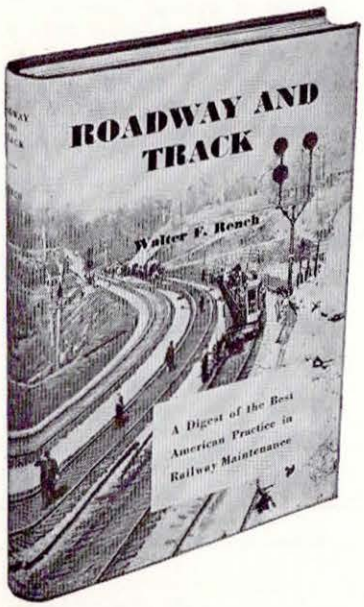

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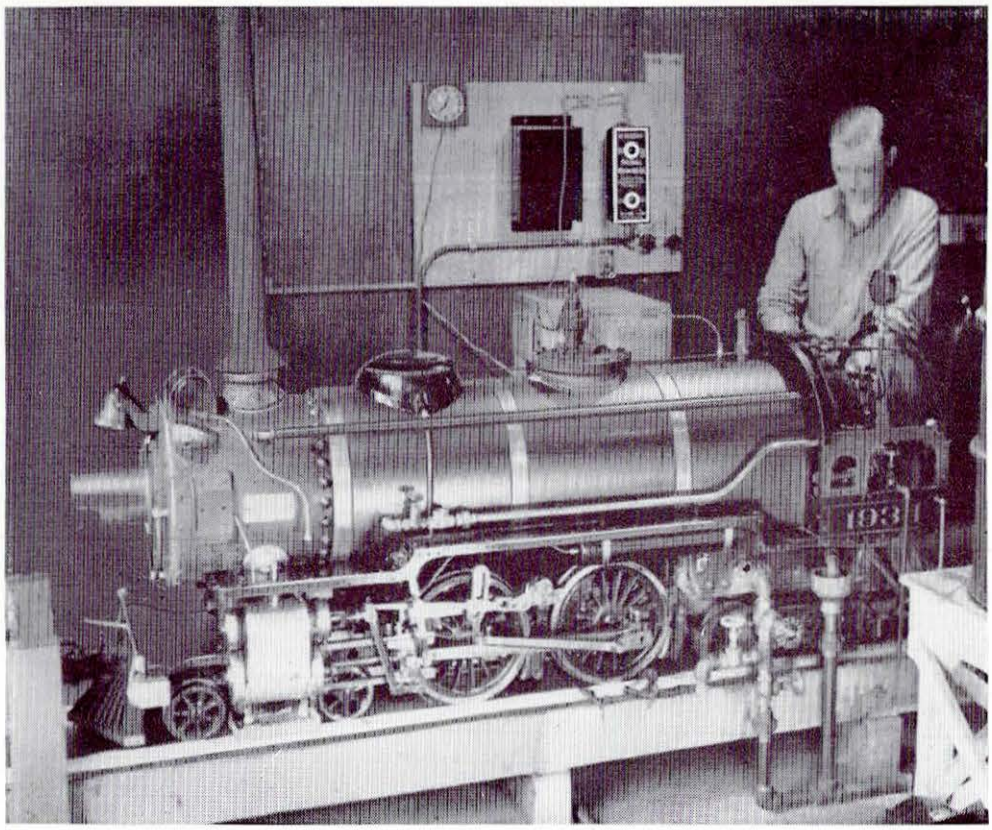

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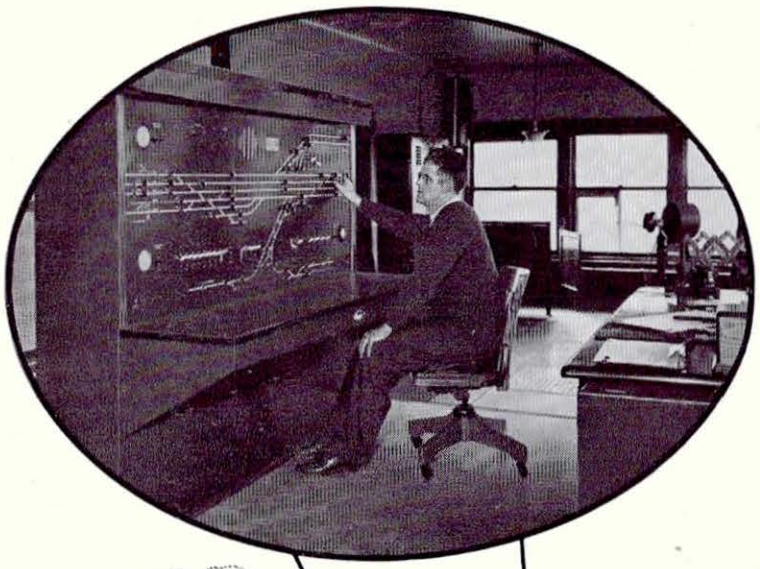

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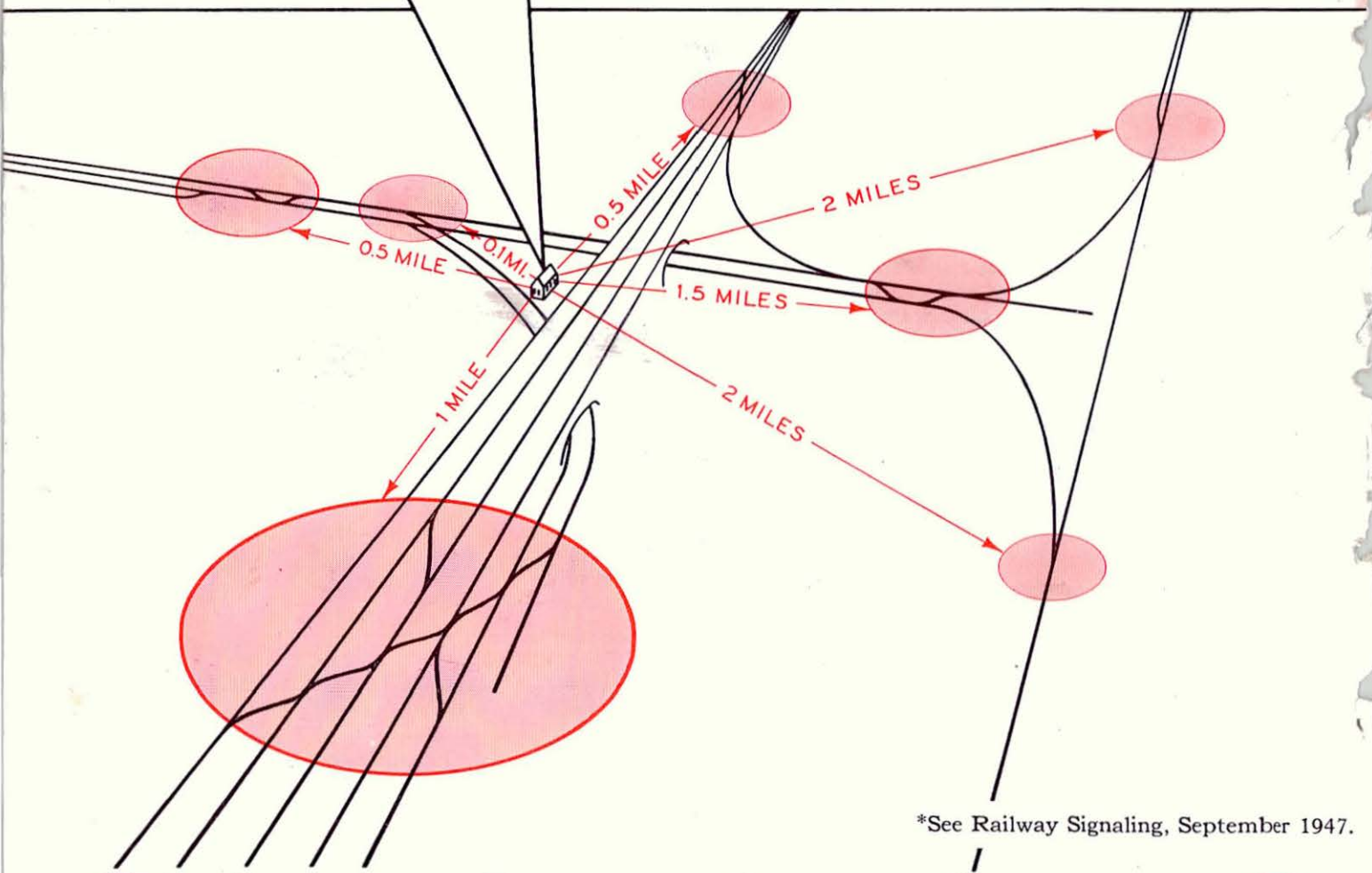

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